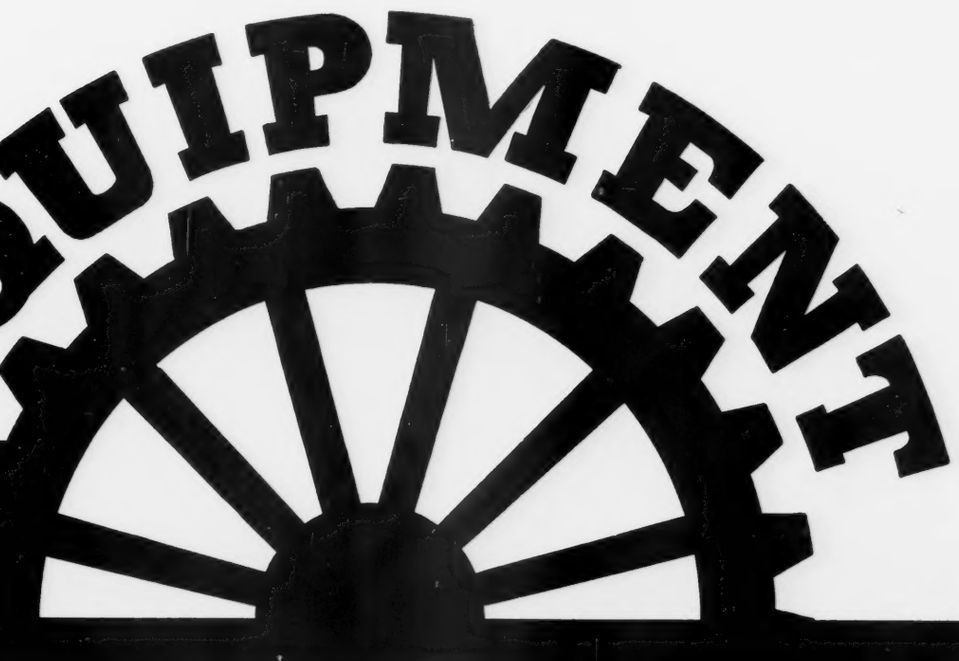
PRINTING EQUIPMENT ENGINEER



DECEMBER · 1935

TECHNICAL PUBLICATION FOR PRODUCTION AND MECHANICAL EXECUTIVES IN THE GRAPHIC ARTS INDUSTRY

STAMINA

PROLONGS THE LIFE OF
Today's
PRODUCTION ECONOMIES

GOSS HIGH SPEED ANTI-FRICTION PRESS

● Spiral and helical gears—dynamic balance—pre-loaded cylinder bearings—force-feed lubrication . . . these outstanding features enable the Goss High Speed Anti-Friction Press to accomplish savings of time, minimize friction and vibration, reduce wear and maintenance. And because of its massive construction, the immediate economies and advantages of this Goss Press will be extended over an almost indefinite period of years. Rugged strength is innate in every part—cast, machined, and assembled by experienced craftsmen . . . Whether your requirements call for a large or moderate installation, check the advanced principles of engineering incorporated in Goss equipment. Write now for general technical data or specific information.

THE GOSS PRINTING PRESS COMPANY, PILSEN STATION, CHICAGO

GOSS

NEW YORK: 220 E. FORTY-SECOND STREET
SAN FRANCISCO: 707 CALL BUILDING
THE GOSS PRINTING PRESS COMPANY
OF ENGLAND, LTD., LONDON, ENGLAND

HOBO SCORCHERS PUT YOUR PRINT ON THE BUM

The Stahi Autoformer—a revolutionary automatic machine for FAST PRODUCTION will improve the quality of your printing and increase the dry-mat output. **The Stahi Junior Former** is a non-automatic machine for the Smaller City Newspaper—providing an Engineered Dry-Mat routine—assuring Uniform Casting Levels—which reflect brilliance in the printed newspaper—with a **Vastly Lower Production Cost.**

STAHI NEWSPAPER SUPPLY COMPANY, INC.

1020 CROCKER STREET,
LOS ANGELES, CALIF.

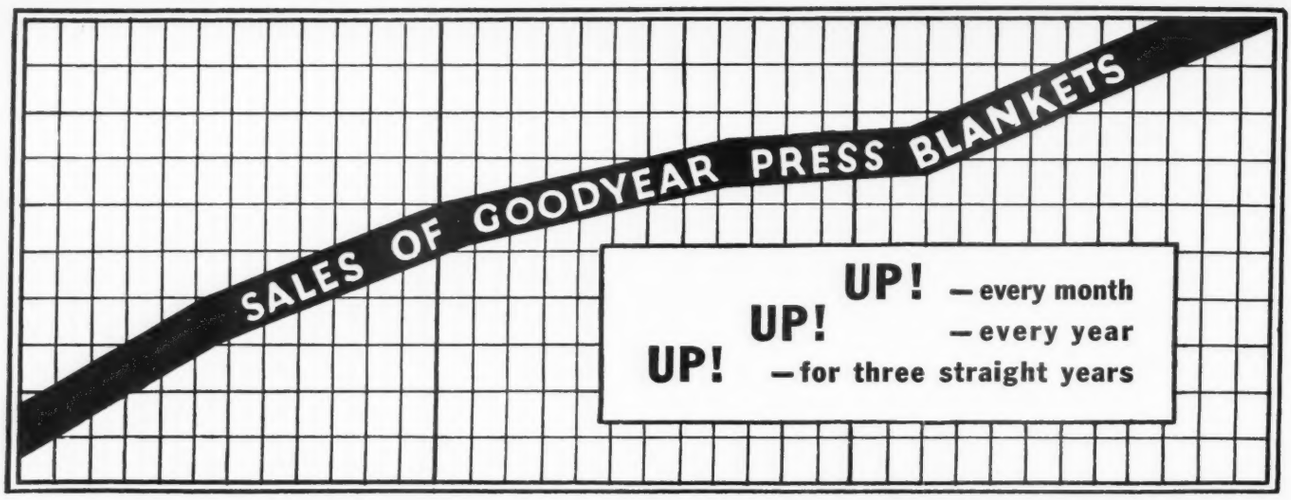
417 OREGONIAN BLDG.,
PORTLAND, OREGON

AGENCIES:

GOSS PRINTING PRESS COMPANY, Chicago, New York, San Francisco
CERTIFIED DRY MAT CORPORATION, 342 Madison Avenue, New York
DUPLEX PRINTING PRESS COMPANY, Battle Creek, Michigan
WOOD FLONG CORPORATION, Hoosick Falls, New York
BURGESS CELLULOSE COMPANY, Freeport, Illinois
R. HOE & COMPANY, New York, Boston, Chicago, San Francisco

Foreign Agencies:

GOSS PRINTING PRESS COMPANY of London, England
A. M. CARNEIRO & COMPANY, 152 West 42nd St., New York
TORONTO TYPE FOUNDRY COMPANY, Ltd., Toronto, Montreal, Winnipeg, Canada



HERE'S THE ANSWER ON BLANKETS

EVERY month, for 36 straight months, Goodyear Press Blankets have shown an increase in sales — *as high as 50% from month to month and year to year!*

Today more newspapers are printed on Goodyear Rubber Underpacking than on any other kind!

More prize-winning newspapers have been printed on presses equipped with Goodyear Press Products than with any other kind!

Isn't this the best evidence that Goodyear Rubber Underpacking and Goodyear Red Top Felt Blankets print sharper, cleaner — give more uniform impression, better half-tone reproduction — and last longer?

Why not see what these press-proved products will do for you? A line to Goodyear, Akron, Ohio, or Los Angeles, California, will bring complete information.

Branches in all principal cities

THE GREATEST NAME IN RUBBER

GOODYEAR

MORE NEWSPAPERS ARE PRINTED ON GOODYEAR RUBBER UNDERPACKING THAN ON ANY OTHER KIND

Associate Member
National Printing Equipment
Association, Inc.

DECEMBER 1935
Volume 51 Number 3

Printing EQUIPMENT Engineer

Trade-Mark Registered U. S. Pat. Office

Published by Don Will
Edited by Mac Sinclair

A Technical Publication for Mechanical Executives Responsible for Printing Production, Equipment and Supplies in the Commercial, Magazine, Private Plant and Daily Newspaper Fields.

Established 1910

CCA
Member Controlled Circulation Audit

Share Your Knowledge With Others

The key men in your organization will appreciate looking over the pages of this magazine. Perhaps one of them will be able to put some particular technical idea to good use in your plant.

Place a check mark in each square for attention of the department head or assistant whom you wish to look over special articles in this issue.

☐ ..... *Production Manager*
☐ ..... *Mechanical Superintendent*
☐ ..... *Composing Room Superintendent*
☐ ..... *Chief Composing Room Machinist*
☐ ..... *Monotype Department*
☐ ..... *Photo Engraving Department*
☐ ..... *Foreman Lithographing Department*
☐ ..... *Superintendent Stereotype Foundry*
☐ ..... *Superintendent Electrotype Department*
☐ ..... *Superintendent Press Room*
☐ ..... *Bindery Foreman*
☐ ..... *Manager*
☐ ..... *Purchasing Agent*

CONTENTS

PAGE

RUBBER PRINTING PLATES AND HOW TO MANIPULATE THEM - - - - - - - 7
Robert F. Salade

TYPE FOUNDING PROCESS UNDER RIGID CONTROL 10
H. I. Lewis

HOW DO YOU LIKE OUR REFERENCE NUMBER? 12

ELECTRIC EYE REGULATES STEREOTYPE METAL TEMPERATURE AT BUFFALO *News* - - - 18
John W. Rosenbach

EQUIPMENT - - - - - - - - - 21

PATENTS - - - - - - - - - - 28

TECHNICAL LITERATURE - - - - - - 34

ADVERTISERS' INDEX - - - - - - - 36

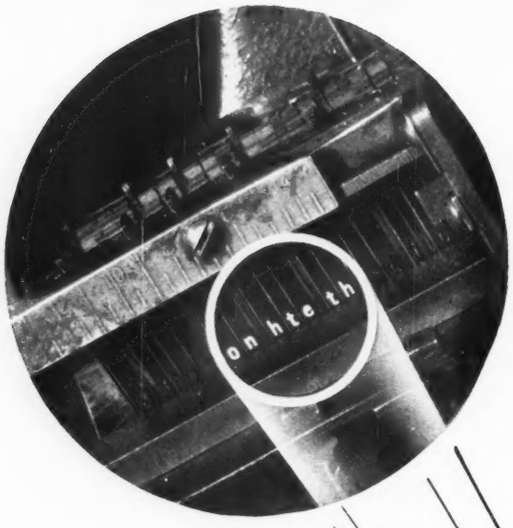
ANNUAL INDEX - - - - - - - - 37

PUBLISHED MONTHLY AT 1276 WEST THIRD STREET, CLEVELAND, OHIO

EASTERN REPRESENTATIVE: RUSSELL BIRCHFIELD, 509 FIFTH AVE., NEW YORK, N. Y. PHONE: VANDERBILT 3-5191.

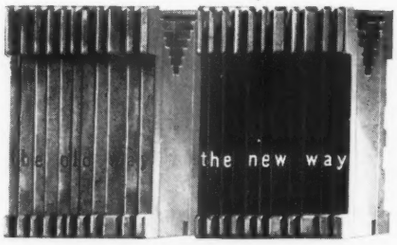
WESTERN REPRESENTATIVE: H. D. AYLSWORTH, 121 NORTH CLARK ST., CHICAGO, ILL. PHONE: STATE 3800.

Copyright 1935 by Willsea Publishing Co.; Single copy, $.25; subscription price, $2.00 per year, in advance. Subscription rates for Canada and Foreign Countries on application. PRINTING EQUIPMENT ENGINEER is fully protected by copyright and nothing that appears in it may be reproduced either wholly or in part without permission.



Like spotlighting every error before the line is cast . . .

Do you think the above picture is exaggerated? It is not. The reference characters within the "spotlight" were treated by the Black and White Matrix Contrast process. The other reference characters are the regular characters common to ordinary matrices. Now you can see how Matrix Contrast prevents errors. Now you can understand how we can GUARANTEE a reduction of total errors in original machine composition of at least 25 per cent. Matrix Contrast service saves time for operators, proofreaders, and floor men—at the same time increasing production by preventing eye-strain and resulting fatigue. Write for full particulars.



The Black and White process saves money by preventing errors. No new equipment is needed, no floor space. There's nothing extra for anybody to do—and no additional costs other than a moderate service charge.

MATRIX CONTRAST CORP'N, Empire State Building, New York

SOLE LICENSEES OF THE PERCY L. HILL MATRIX CONTRAST PATENTS NOS. 1,466,437 AND 1,796,023.

p•e•e

Rubber

Printing Plates and How to Manipulate Them

By Robert F. Salade*

THROUGHOUT the letterpress printing industry the various new and improved makes of rubber printing plates are being utilized to an increasing extent in the production of hundreds of different kinds of printed matter, including many specialties. The so-called "oil-proof" types of rubber are now being used for the making of both hand-engraved printing plates and the modern molded and vulcanized rubber printing plates. The "oil-proof" types of rubber plates are just as well adaptable to multi-color printing as they are to single-color work.

Future Promising For Letterpress Printing From Rubber Plates

In view of the new developments in heavy platen hydraulic-electric vulcanizing presses, designed for producing many different sizes of molded rubber printing plates up to 24 in. by 38 in.; also, the various new types of printing ink made for printing from rubber plates on a great variety of papers, paper-boards and on many other materials, there seems to be no question that the future for letterpress printing from rubber plates is most promising. On this point, it is significant to note that at the present time, a number of large electrotyping companies are now supplying customers, on order, with molded rubber printing plates, in addition to electrotypes of all kinds. These rubber plates are made from a wide range of type forms, combination forms of type matter and halftones, from original color plates with solid areas, and from electrotypes taken from wax-engraved forms. This class of plate-making amounts to extra business for the electrotypers referred to, of course, Each company is operating a separate department in the plant, with all necessary equipment for the production of accurate molded rubber printing plates and the fact is mentioned that skilled electrotypers are naturally capable of manufacturing good rubber plates as well as good metal electrotypes.

Engraver's Gum for Cutting Plates

However, any printer who is handy with a set of engravers' tools, or even with a penknife, may produce certain kinds of hand-cut printing plates from the standard sheet material known as engravers' gum. One make of this material is of two convenient thicknesses, viz: 3 32-in. and 1/8-in. It is supplied in widths of 34 and 36 in., and in various lengths up to 140 in. This gum has the necessary resistance to oils in either black or colored printing inks. Hand engraved plates made of this material may be run on a platen press, a flat-bed cylinder press or on a rotary press. In fact, one of the greatest advantages of either hand-engraved or molded rubber printing plates is that (according to their surface size), they can be used readily on practically any make, size or style of typographic press, including special designs of sheet-fed multi-color rotary presses of the style used in printing multi-color designs and advertising matter on sheets of corrugated paper-board for shipping containers; also, on web-fed multi-color rotary presses of the kinds employed in aniline ink printing on glassine, metal foil, kraft paper or transparent cellulose.

Mounting the Plate

When a finished rubber plate is to be worked on any flat-bed printing press it should be mounted on a solid base to the desired height. The recommended height is 0.916 in. which is 0.002 in. lower than type-high standard. The base may consist of a block of cherry lumber, birch wood, or laminated board, or any suitable metal base which may be on hand in the shop. In a number of plants, cast-iron newspaper bases, made up to desired sizes, are being utilized as base for rubber plates. With the use of liquid fish glue, and a sheet of manila paper placed between a rubber plate and the base, it is easy to attach a rubber plate firmly to any kind of base, wood or metal. In numerous instances, a rubber plate with open areas may be tacked to a block of cherry lumber.

For Rotary Presses

In cases where finished rubber plates are to be worked on a rotary press, the plates are usually "backed-up" with metal, to the proper height. It is practicable, however, to first have the plates "backed-up" with pieces of manila paper or thin paper-board, then to glue the mounted plates directly to the surface of the plate cylinder of the press, in predetermined positions. This simple method has proved quite successful even with large sizes of solid rubber plates used on a rotary press for printing tints on sheets of paper and cardboard.

Materials Suitable for Rubber Plate Printing

For many years now, hand-engraved gum or rubber plates have been used for printing, in one, two or more colors of ink, the following kinds of material: Jute, burlap and cotton fabrics (for sacks and bags); wood, sheet metal, glass, solid fibre board, celluloid, wallboard and oilcloth. At the present time, both hand-cut and molded rubber plates are being used in printing the same range of material mentioned, and in addition, other classes of hard, thick or coarse materials which could not be printed properly with metal plates. Engravers' gum, for hand-cut plates, is made particularly for printing on sheet metal such as tin and lead, glass, enameled iron signs, laminated wood game boards and toys, celluloid, wallboard and thick cardboard. This gum has the necessary characteristics to make it excellent either for relief printing or solid color printing on a wide variety of hard, flat materials, of any thickness, shape or size which can be handled conveniently on a heavy duty platen printing press.

Cutting Engravers' Gum

With the essential original drawing or sketch and the ordinary methods of tracing, it is a comparatively easy matter for a printer to hand-cut designs in sheets of

*All rights reserved.

engravers' gum. The subjects may include those for multi-color designs, bold lettering in relief, color pictorial designs and every variety of "reverse" letter subject. Rubber plates of this character, with hand-engraved designs in relief, are now being used to print many different types of paper stock and paper-board including those named as follows: Metallic-coated and metal-faced papers; embossed-finish paper box covers and similar fancy embossed paper and cover stock; parchment and similar rough-finish stocks, of the kinds used for greeting and holiday folders; moisture-proof cellophane, for food and confectionery wrappers; grained and pebbled types of cover papers, used as advertising folders, broadsides, covers for catalogs and brochures, etc.; all makes of uncoated paper, including matt finish art papers and cardboard; blotters; plain and embossed makes of tin foil; thick, rough paper-board of the type used in making disc-shaped beverage glass mats imprinted with advertising matter; flint-glazed and friction-glazed white, tinted and colored papers; all kinds of heavy, coarse paper-board; extra-heavy coated cardboard; clay-coated folding boxboard; inexpensive types of absorbent paper stock.

Economy In Ink

On practically all these materials printing from rubber plates can be done with a smaller amount of ink than would be required for the same jobs printed from metal plates. For example, one long run of advertising desk blotters was printed in green ink, from a "reverse" letter metal plate (a solid area plate with the lettering etched out of it); this run consumed about nine pounds of the green ink. Later on, a repeat order for the same job was received and the printer decided to have a molded rubber plate made from the original, and to use the rubber plate for the new run. As a result, about five pounds of green ink were consumed. The presswork was easy and the finished printing presented a very bright appearance.

Common Utility of Rubber Plates

Merely to illustrate the utility of ordinary flexible rubber plates, the fact is mentioned that the common make of "rubber stamp," made from a small form of display type, and mounted on a wood block, has been used on a platen printing press to imprint ads on the "backs" of old-fashioned Japanese fans and on palm fans. Although this printing was not perfect, it was good enough for the purpose. The same kind of "rubber stamp" plates, mounted on wood blocks *lower* than type-high, may be used on a platen press to imprint small ads on such wood articles as: Flat spatulas, for stirring paint in cans; backs for hand-brushes; coat and suit hangers; cut sizes of cigar box board; various small wood toys and advertising novelties. To provide for imprinting thick wood articles on a heavy-duty platen press, the small rubber plates may be mounted on blocks of wood as low as ½-in., if necessary, and either regular small diameter gudgeons can be placed on the form rollers, or regular size gudgeons can be milled down to smaller diameter. This will make it possible for the form rollers to ink the surface of a low-mounted plate. The platen of the press may also be readjusted to a position below normal, if so desired; in fact, this procedure is recommended for a long run of printing on thick wood.

Impression Should Be Light

For all classes of letterpress printing from rubber plates, the impression for the plates should be light rather than heavy. The so-called "kiss" impression is ideal. Heavy impression will not only distort the printing surface of a rubber plate, but will also cause frictional wear on the plate and, on high-speed rotary presses, heavy impression and friction may destroy the plates after a few thousand impressions. With just the proper amount of impression, hundreds of thousands of printings can be taken from either hand-engraved or molded rubber plates, without the plates showing serious signs of wear.

Makeready Preparations

Careful press makeready is necessary for all good rubber plate printing on paper stock and similar thin materials, in order to obtain a uniformly light, yet solid, impression. In the first-place, a semi-hard packing should be placed on the press. This may consist of: (1.) A medium-weight sheet of smooth press-board to serve as a foundation for the entire packing. (2.) A few sheets of supercalendered book paper, to be used as hanger-sheets in the packing, for makeready work. (3.) Several loose filler sheets of ordinary machine-finish book paper, these sheets to be placed under the hanger sheets and over the press-board foundation. (4.) A top-sheet of strong, smooth Manila paper; or, for a long run of color printing, a top-sheet of specially prepared moisture-proof tympan paper.

Immediately the hanger sheets are placed on the press, a light impression of the form may be taken on one or two of these sheets, as preferred by the pressman. The purpose of these printed impressions is to indicate the exact positions for makeready patch sheets, made as follows:

A light printed impression of the rubber plate form is taken on a sheet of medium-weight super-calendered paper. On the surface of this printed sheet, all the weak or low areas of the plates, as plainly indicated, are outlined on the sheet with a red or blue crayon, then these marked out places are to be "spotted-up" with thin, white tissue paper. The heavy red or blue outlines can be seen easily through the white tissue. Therefore, it is an easy matter to trim the pasted-on pieces of tissue according to the marked "patterns." Although all kinds of "spotting-up" for makeready work may be done either with a standard make of makeready paste or with ready-mixed paperhangers' paste, the new type of engravers' concentrated rubber cement (kept stored in a closed glass jar) is excellent for any careful pasting to be done in connection with press makeready.

After the first completed patch-sheet has been placed in true position on one of the hanger sheets of the packing, and the top-sheet properly attached, a second impression of the form is taken on another sheet of supercalendered paper. This second impression may show the need of additional "spotting-up," and if such is the case, the necessary marking out and "spotting-up" with white tissue paper are applied to the second sheet, and this patch-sheet is then pasted in accurate position to a hanger sheet in the packing. The actual test for a level and correct amount of impression is made with a sheet of the paper stock to be run. If this test shows that the impression is too heavy, one or more of the loose filler sheets can be easily removed from the packing. Or, if the test proves that the impression is not heavy enough for solid printing, one or more additional filler sheets may be placed in the packing to bring about the desired results. It is always a good plan to start every job with a light impression, then to gradually increase the impression to just the right amount required by the particular type and thickness of the stock to be run.

Proper Kind of Inks

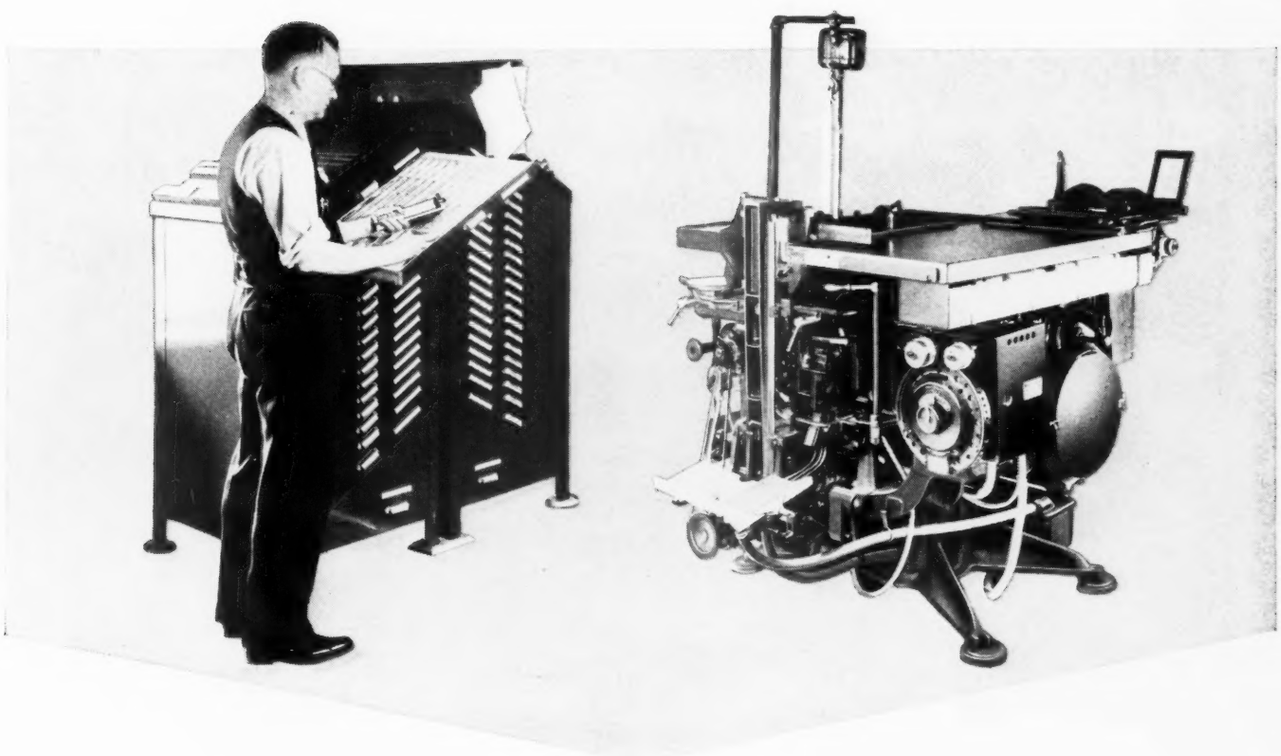
Both black and color printing from rubber plates can be produced to the best advantage with a good grade of

Continued on page 34

YOU MUST SEE THE

A-P-L
TRADE LINOTYPE MARK

IN ACTION



A picture can give you an idea of what the All-Purpose Linotype *looks like*, but neither pictures nor words can give you a complete idea of what it *does*.

You will have to see it in action. The A-P-L is not like any other machine. It has new features such as controlled alignment which enable it to do things no other machine can do. It is a revolutionary development in composing-room operation . . . and yet fits so well into established routine and methods of working that any compositor can use it without special training.

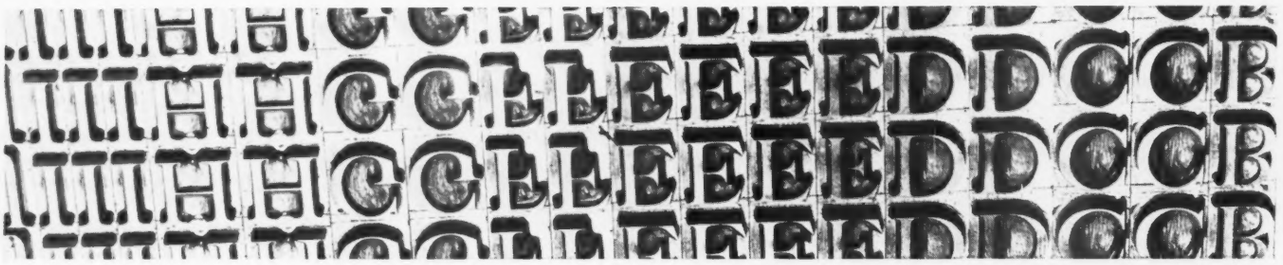
Moreover, it is a development that can be introduced into your plant gradually, and need not represent a heavy initial investment.

The nearest Linotype agency would like to arrange a demonstration of the A-P-L . . . a demonstration that will open your eyes to new economy and convenience of composing-room operation.

•

MERGENTHALER LINOTYPE COMPANY, BROOKLYN, NEW YORK
SAN FRANCISCO · CHICAGO · NEW ORLEANS
CANADIAN LINOTYPE, LIMITED, TORONTO, CANADA
Representatives in the Principal Cities of the World

LINOTYPE MEMPHIS FAMILY



Lusha Nelson Photo

Type

Founding Process Under Rigid Control in ATF Plant

By H. I. Lewis*

IN A PREVIOUS article, Frank O. Brewer of the General Electric Company described the application of thermostatically-controlled electric heating to our type-casting equipment. To one who has been closely concerned with type-casting procedure, some of the comments which this article aroused seemed to demand further consideration. "I always thought all your problems were in the designing and matrix-making end," the comments implied, ". . . that once you had a set of matrices, it was merely a question of tossing in so much metal and getting out so much type."

Anyway, the upshot of the matter was that the editor of *Printing* Equipment *Engineer* asked us to retrace our steps a bit, and describe in more detail some of the control procedure that many years of type-casting experience have shown to be necessary in turning out foundry type that is accurate in dimension and of fine printing characteristics.

Type Metal Composition Important

In the first place, it is not always fully recognized that no type-casting procedure, however closely controlled, can turn out good type from poor metal. A metal composition of relatively high melting point (above 800 deg. F.) imposes severe operating conditions on the equipment involved, but when used properly it assures fidelity in the pattern and durability of the product. The percentage of copper added to the lead-antimony-tin combination is the critical factor in increasing toughness and resistance to wear or abuse in service, and the mixture finally selected must represent a careful economic balance between durability and other desirable characteristics.

Control of Metal Composition

Rigorous standards of metallurgical analysis in our own chemical laboratory are a primary step in the control routine which begins with the composition of the type metal itself. Analysis of type pieces after casting is also a part of the routine. In addition to such chemical control, physical cleanliness of the metal billets up to the time they enter the melting pots of the individual casting machines is an important point. The uniformity of type metal composition assured by this chemical and physical control is an important factor in its printing characteristics, due to the elimination of flaws in soft letters that would flatten quickly on the press or of excessively brittle type which may crumble in service.

400 Lbs. Per Sq. In. Casting Pressure

The general operating details of the type-casting unit itself are probably familiar to most printing plant mechanical executives. Essentially, it consists of a water-cooled mold, of which the matrix forms the forward side, into which the molten type metal is forced under approximately 400 lb. per sq. in. pressure from an insulated crucible containing the heating units and thermocouple. As the type hardens, it is ejected from the mold and moved along a channel to make way for the following piece of type. The jet and kerns are trimmed by automatic tools as the character moves into the channel. Matrices, of course, are interchangeable with others of the same size. The units may cast type at rates varying all the way from 250 per minute for small sizes to 1 per minute for the 120 point size. This means that from 1 ounce to 1 pound of type metal per hour passes through the equipment.

Continued on page 14

Inspecting a type for letter alignment and perfect facewise printing qualities as it comes from a typecasting machine in the plant of the American Type Founders. Notice the type in the delivery channel. These are pushed downward progressively and automatically as each type is cast. Lusha Nelson Photo.

*Works Manager, American Type Founders, Elizabeth, N. J.

A Plan *to let new equipment pay for itself out of earnings*

THE long-term, low-rate financing now available through the use of Equipment Acceptance Corporation Credit, offers you the opportunity of carrying out an improvement, alteration and modernization program without impairing your working capital.

Our booklet explains in simple language the eligibility requirements and procedure for obtaining this credit.

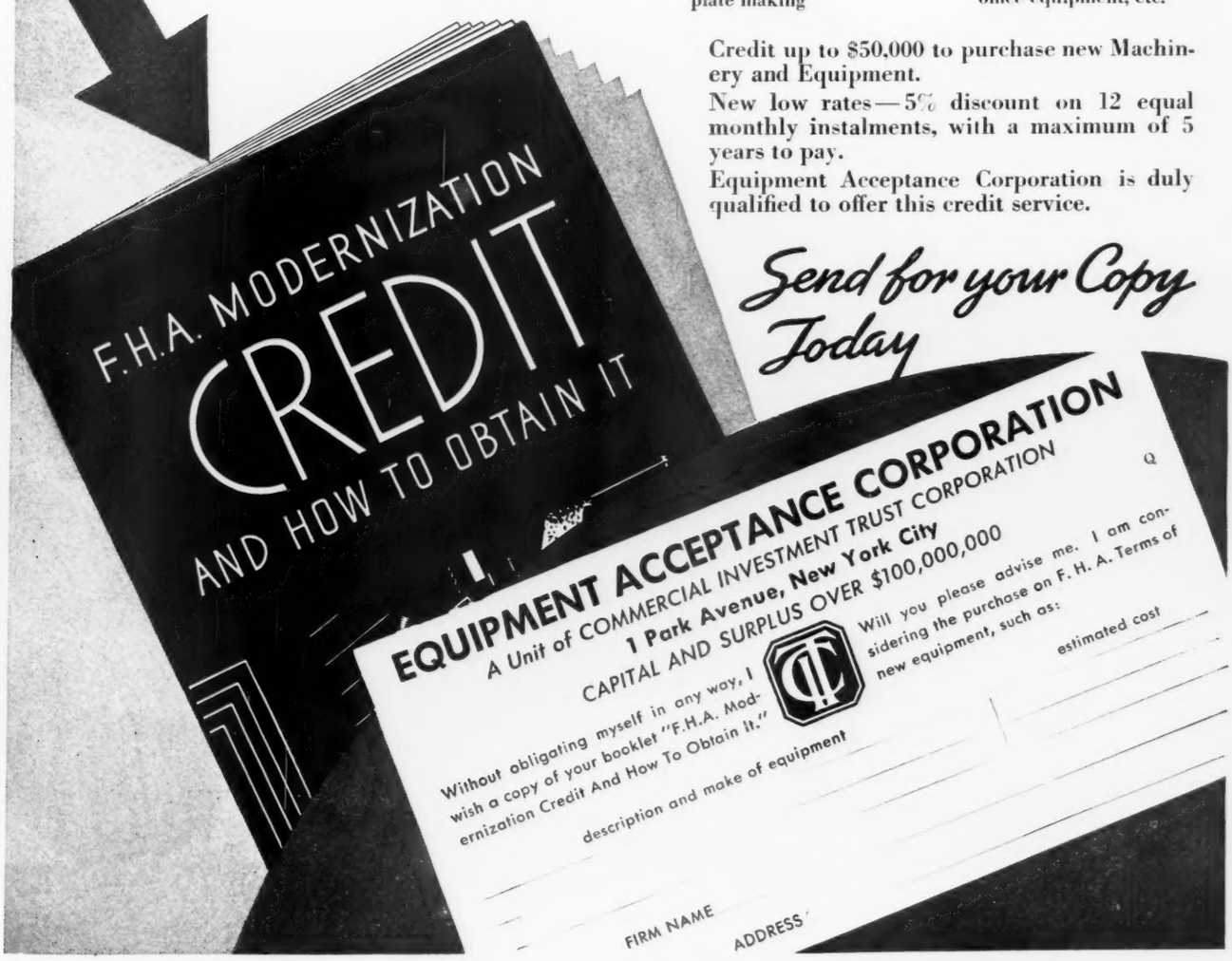
Hundreds of progressive manufacturers of machinery and equipment are now providing this F. H. A. Modernization Credit to their customers through us. Remember, the Government does not intervene in any manner in the negotiation and extension of this credit. If you are interested in purchasing new machinery and equipment with this long-term credit, send us the coupon today.

F. H. A. CREDIT APPLIES TO— Printing Machinery and Equipment
for pressroom
composing room
bindery
plate making
also heating plants
air conditioning
sprinkler systems
elevators
dynamos, engines
office equipment, etc.

Credit up to $50,000 to purchase new Machinery and Equipment.

New low rates—5% discount on 12 equal monthly instalments, with a maximum of 5 years to pay.

Equipment Acceptance Corporation is duly qualified to offer this credit service.


F.H.A. MODERNIZATION
CREDIT
AND HOW TO OBTAIN IT
Send for your Copy Today
EQUIPMENT ACCEPTANCE CORPORATION
A Unit of COMMERCIAL INVESTMENT TRUST CORPORATION
1 Park Avenue, New York City
CAPITAL AND SURPLUS OVER $100,000,000
Without obligating myself in any way, I wish a copy of your booklet "F.H.A. Modernization Credit And How To Obtain It."
Will you please advise me. I am considering the purchase on F. H. A. Terms of new equipment, such as:
description and make of equipment
estimated cost
FIRM NAME
ADDRESS

How Do *You* Like Our Reference Number?

Brickbats—We Accept Them.

If you have not yet sent in the postage-prepaid mailing card which was inserted in your copy of the 1936 Printing Equipment and Supplies Reference Number, *Printing* EQUIPMENT *Engineer* will be pleased to have you send it as soon as possible with whatever comment you care to make. Printing Plant Mechanical and Production Executive recipients appreciate the 1936 Printing Equipment and Supplies Reference Number which was published especially for their use and information. They have been answering liberally our query: "How Do *You* Like This Reference Book?"

We print below a partial list of Printing Plant Mechanical and Production Executives and Advertisers' Executives who have sent comments on the big November Reference Number:

Roses—We Accept Them, Too.

A

Harry B. Adsit
Wellington Alexander
Paul P. Allen
Earl E. Anderson
H. E. Anderson
Rupert H. Anderson
F. F. Arnold
Mr. Arrison
Ralph L. Arthur
H. D. Ashby
O. L. Auerbach

B

M G. Bachmann
C. E. Baker
R. B. Beard
H. C. Benedict
R. E. Bennett
Harry B. Bergstrom
John L. Blake
A. Bobe
C. E. Boggs
Boise Printing Co.
R. J. Brien
Emil L. Borak
William C. Braun
Smith Brinker
R. S. Brown
G. R. Bryan
Gene Buchanan
J. A. Burke
R. J. Burkard
Claude P. Burnett
A. H. Burns
L. J. Burns
W. G. Burrows
H. W. Butters

C

Russell H. Calkins
B. D. Caldwell
Richard C. Carberry
Carroll Press
Joe Carter
George W. Carthron
Alton B. Carty
F. C. Christopher
Oscar A. Clarey
F. A. Clayton
John E. Cobb
J. Troy Cobb
F. C. Cole
Howard Colton
Charles B. Conahan
L. H. Conley
R. E. Coon, Jr.
R. C. Corlett
Stanley E. Crane
S. S. Crawford
W. O. Critchfield

D

A. H. Daiber
Thomas E. Dalton
Arthur B. Davis
Lloyd B. Davis
James M. Dent
A. Park Dibler
George N. Dieterich
James H. Dillon
C. M. Doan
Carl Domino
F. M. Duncan
W. A. Dundas
Robert T. Duffy
R. W. DuSell

BOB MAXWELL *sends a Rose.* The original was cut upon white bristol card and in this engraving is reduced approximately one-half.

E

Malcolm Ean
George Ellis
S. D. Evans
Electro-Hydraulic Machinery Co.

F

George Fink
E. J. Fisher
George I. Fiske
G. C. Flint
J. Howard
John R. Fornof
Fostoria Times
George H. Fuller

G

Gates Legal Publishing Co.
Eddie Gaughan
H. L. George
Jack Gill
F. J. Genger
Carl A. Gilzow
B. F. Goethner
A. Freeman Gray
Harley Grimsley

H

Joseph Haberman
W. S. Hahn
Marriner D. Hardison
J. D. Harris
Harry F. Harrison
H. G. Heuman
Herman Hiatt
Ben L. Hibackle
O. E. Hiltbrand
John Hogan
A. R. Hopkins
J. J. A. Hossenlopp
J. L. Houston, Jr.
E. C. Hundley

I

A. V. Ingham

J

John F. Jackson
W. W. Jansen
Jaqua Printing Co.
S. Johansen
B. R. Johnson
Frank C. Jones

K

E. R. Keller
Kelley Printing Co.
G. W. Kent
James F. King
Henry A. Kirchner
George M. Kohr
George I. Kubricht

L

Louis M. LaFortunes
Lamberton News
Nat G. Langford
Lapeer County Press
Marcus A. Larsen
E. C. Lavoy
Robert O. Law Co.
William Lawrence
O. W. Layblin
H. D. Leavenwood
Frederick M. Leonard
William C. Leslie
Wm. Lieberknecht
Leon A. Link

M

L. A. MacKenney
Earle Martin
Martin Printing Co.
Joseph A. Mastalerz
A. R. Maujer
Robert Maxwell
Walter McAlister
W. S. McCormick
G. A. McDonald
L. L. McFall
J. P. McHale
John J. Meadth
Metropolitan Supply Co.
James F. Meyer
Henry G. Miller
Russell B. Miller
Milwaukee Herold
Gordon D. Montgomery, Jr.
F. C. Murray

N

J. B. Neale
L. D. Newberry
Frank F. Novy

O

Walter Ogden
Jack O'Hare
William W. O'Neal

P

W. R. Palmer
Horace H. Parker
A. D. Peoples
R. F. Porter
Pittsburgh Post-Gazette
Premier Printing Company

R

John B. Rardin
Ira A. Redlinger
Adam Henry Reiser
Republican & Gazette Engr. Co.
C. C. Riggs
G. A. Righter
Allan Robinson
Robinson Tag & Label Co.
Roberts Printing Company
Rockford Printing & Supply Co.
Frank X. Rooney
Harry Russell

S

Robt. F. Salade
Fred Salzer
J. H. Schottler
W. F. Schultz
R. E. Shepard
Glen Sherer
Frank Sherman
Frank M. Shubert
C. A. Silverthorn
O. F. Simpson
John K. Sluep
Herbert R. Smith
P. A. Smith
Russell Stahl
F. W. Stein
H. Y. Sterrett
W. G. Stevens
Joe B. Sublett

T

James E. Thomas

V

W. C. Vanderwerth
Rene J. Villere

W

I. C. Wagner
Howard Wallingford
E. A. Walrath
Harold Walston
William D. Watkins
Jerry Watson
Palmer V. Welch
P. P. Whipple
Otis Whiting
Richard Wilson
Roy E. Wilson
W. E. Wines
Wood Machine Composition Co.

Y

Yaeger Typesetting Co.
Sam R. Young

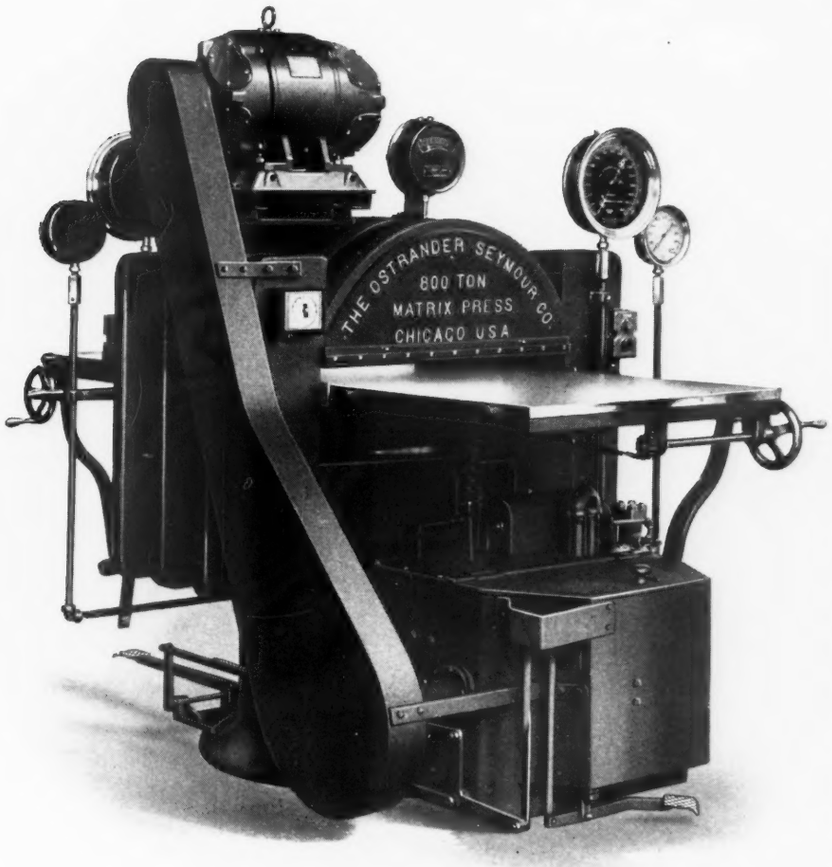
Addendum

In the 1936 Printing Equipment and Supplies Reference Number, under the classification of Printing Presses, the Miller Printing Machinery Co., Pittsburgh, Pa., is listed as being the manufacturer of automatic and job presses. The principal products of the Miller Printing Machinery Company are single and two-color Automatic Flat Bed Cylinder Presses. Please make this correction in your copy of the Products Index, page 107.

The U. S. Stoneware Co., 50 Church St., New York, N. Y., makers of Rotospray Etching Machines for photo-engravers, who are listed under "Photoengravers Equipment and Supplies," should appear also under the classification "Etching Machines" in the Products Index.

Russell Products Company, 810 Sansom St., Philadelphia, Pa., manufacturers of stereotype molding and creeper blankets, tissue and drying felt papers, were listed under "Stereotypers' and Electrotypers' Machinery, Accessories, Tools and Supplies" on page 113, November Reference Number Products Index. This company should be included under the "Blanket" classification on page 93 also.

The Ostrander Seymour Direct Pressure Matrix Molding Press



Designed and Constructed by the World's Largest Producer of Printing Plate Making Equipment.

SPECIFICATIONS

Size of Platens—32 x 25 inches,
Clearance between Uprights—32 inches,
Opens to 1⅞ inches; closes to 1/16 inch,
Maximum Pressure—800 tons on 22 inch ram,
Floor Space—4 feet by 7½ feet,
Weight, assembled—12,000 pounds.

Standard Equipment—

Five horse-power, 1750 r.p.m. motor, controller and front and rear push-button stations, Three-strand Texrope transmission, with safety guard, Electrically heated and thermostatically controlled lower platen; twelve 1250 watt dry elements; automatic heat control from room temperature to 600° F.

Water-cooled insulating platen between heated platen and ram.

Manually operated front and rear sliding aprons,

Front and rear hand and foot operating controls,

Front and rear automatic high and low pressure gauges,

Timeostat timing device,

Removable blanket for cold molding.

Especially developed for rapid production of highest quality stereotype mats from plastic, semi-plastic, wet and dry flongs.

BACK of The Ostrander Seymour 800 ton direct-pressure matrix press is over 60 years of successful experience in the designing and building of printing plate molding equipment, and into this particular machine has been incorporated every tested and approved feature which has contributed to the high standing of all Ostrander hydraulic equipment. More than 800 Ostrander hydraulic presses now are in daily operation, that number being in excess of four times those installed by all other makers combined. One plant operates 20 Ostrander hydraulic presses of various tonnage capacities; hundreds use from that number down to a single press. The machine, except for the electrical equipment and gauges, which are of the highest grade obtainable from the world's most reliable manufacturers, is produced entirely in the Ostrander factory, no assembly parts from uncertain sources being employed. Attention is particularly directed to the fact that the platen is guided entirely by the ram; no shoes or other sliding parts operate on the frame. The minute space of .0015 between ram face and cylinder wall constantly insures accurate molding; will mold and dry from a single line to a full newspaper page.

Ostrander direct pressure matrix presses are installed in the country's largest and best known establishments, having been selected after extensive investigation and on recommendation of users.

Ostrander Seymour Machinery is the acknowledged standard of the World

EVERYTHING FOR THE STEREOTYPER, ELECTROTYPER AND PHOTO ENGRAVER

The Ostrander Seymour Company

1870 South 54th Avenue Cicero Station Chicago, Ill.

EASTERN OFFICE, CHRYSLER BUILDING, NEW YORK CITY

Type

(*Continued from Page 9*)

Electric Metal Melting Means

The metal in the melting pot is maintained within plus or minus 5 deg. F. of the selected operating temperature by the thermostatically-controlled heating units. When type is being cast at the normal rate, the heating units operate about one-half the time. Individual neon glow lamps on each machine indicate when the heating units are in operation. Tests show an electric energy consumption of about 15 kw-hrs. in melting 100 lbs. of metal under normal operating conditions, or about 0.15 kw-hrs. per pound.

In this view are shown six figure-7 types (18-point) being held frictionally in a limit gauge. If there were one small error in body size in each of the types, it would be multiplied six times when an attempt is made to insert them in this gauge which is used in the typecasting department of the American Type Founders plant. Photo By Lusha Nelson.

Maintenance of operating temperatures within close limits is particularly important in view of the high melting point of the alloy used. Casting with the metal too cold is a primary cause of porous type and of characters which lack sharpness and fidelity to the matrix. In addition, because type metal is a mixture rather than a true alloy, separation of the lower-melting components within the pot may cause variations in composition when the temperature falls below the proper level. Accurate temperature control to eliminate casting below the critical temperature is a primary factor.

Problems in Type Foundry

Operating temperatures which are too high are particularly serious from a maintenance standpoint, since they may upset the normal cooling cycle and lead to damage of the matrix, the nipple through which the metal reaches the mold, and other parts of the system. In view of the general operating temperatures and the rapid alternation of heating and cooling action at the mold, the maintenance problems of such equipment will be recognized as serious enough even under the best operating conditions. Incidentally, the metallurgical problems involved in choosing metals for the matrix and mold which will stand up under these conditions are also serious. The molds are a special case-hardened nickel-steel alloy which maintains its hardness and dimension in spite of the rapid succession of temperature changes to which it is subjected. Matrices are of nickel-copper alloy also chosen for resistance under such conditions.

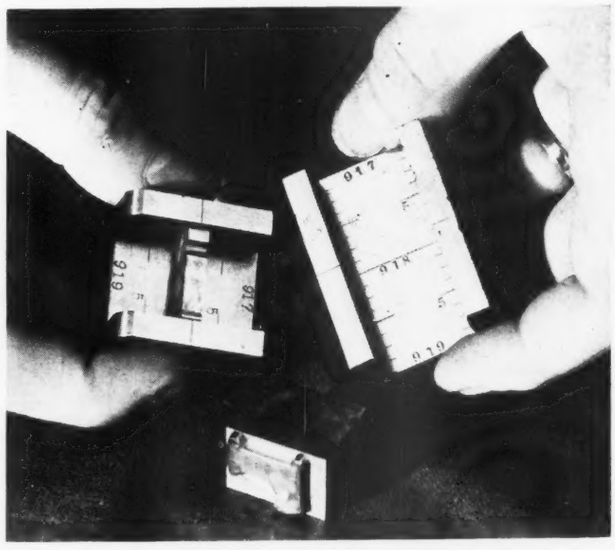
Type Inspection System

Control of the quality of the type itself as it comes out of the casting unit is subjected to a triple-check inspection system. First of all, the machine operator is under an immediate responsibility. Gauges used by each operator check the body dimensions of the type to an accuracy of plus or minus 0.0002 in. or less. Gauges exactly 144 points across are used to check this dimension on all type up to 36-point, and gauges 288 points wide are used for the larger sizes. Thus, for 6-point type, the total body measurement of 24 characters, rather than a single character, are checked in the gauge, a method that obviously multiplies inaccuracies and insures high precision of measurement. Type height must be 0.91825 in., plus or minus 0.0005 in., as measured on a gauge specially designed for this test. The desirability of extreme accuracy and close inspection of type height will be recognized by any printer who has attempted to make-ready a job set with low letters here and there.

Sharpness of the character and finish of the casting are subject to close visual inspection. Floor inspectors who go from machine to machine supplement the operators' check in these factors, and the triple-check takes place as the type is "divided", or assembled into fonts. Machine operators, floor inspectors, and final inspectors are trained specialists in judging perfect type. Tiny flaws and inaccuracies which would be undetected in the average print shop until the type has been set and the make-ready completed are spotted at once. In addition to body and height, the set or width of letter, for each character of each type style must fall within previously determined measurements. A further check which eliminates the possibility of porous type, although it may appear perfect on the surface, is made by comparative determination of the weight of a certain number of characters.

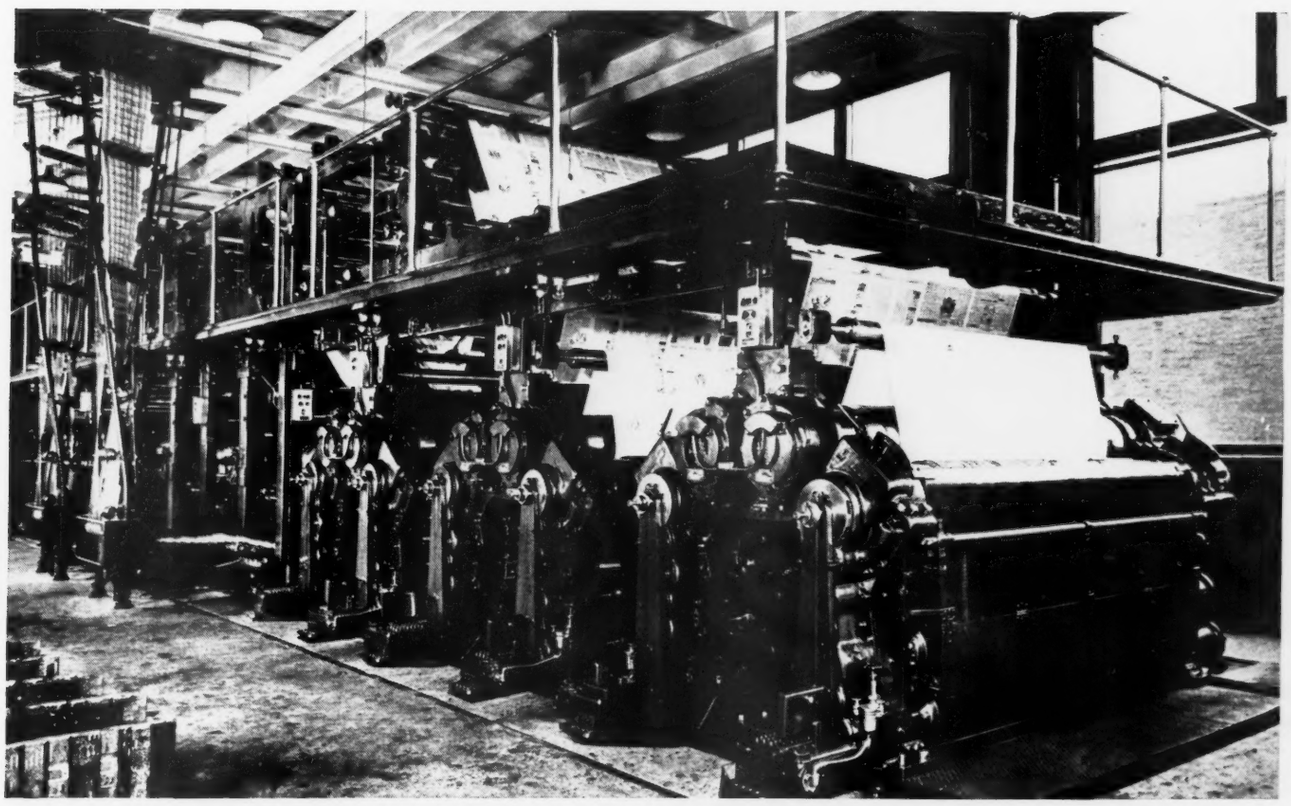
Benton Hardness Tester

Finally, representative pieces of type chosen at random from various fonts and sizes are checked on the Benton Hardness Tester. This unique piece of equipment was developed by Morris Benton of American Type Founders to provide a definite measurement of the combination of hardness and toughness essential for durable, clean-printing type. The conventional types of hardness test-



Testing type which has just been cast in the plant of the American Type Founders at Elizabeth, New Jersey, for height-to-paper. The slot in the gauge is tapered and graduated to indicate variations either plus or minus from 0.918 in. It takes a skilled typecaster to use this gauge properly, just the same as in the case where micrometer calipers are used, because the accuracy of the measurement is dependent upon the "feel" of the person taking the measurement. A type of accurate height will slide exactly to the middle of the slot shown in the left-hand gauge. Photo By Lusha Nelson.

GRIT *Looks at the Record and again* SPECIFIES GOODRICH PRINTERS' ROLLERS



New Hoe Arch Type Super-Production Double Sextuple Press, equipped with Goodrich Printers' Rollers, recently installed by Grit, Williamsport, Pa., showing window space in new daylight pressroom.

GRIT, Williamsport (Pa.) has long been one of America's greatest family newspapers. This popular paper, which has always maintained a high standard of printing, has been a consistent user of Goodrich Printers' Rollers since 1919.

When the occasion arose recently to install new press equipment, they were guided by their previous experience with these rollers and in again specifying Goodrich this customer wrote as follows—

"Our records show that we bought our first Goodrich Rubber Rollers in 1918 or 1919 and we have used Goodrich ever since. This record alone should show what we think of them. We know that we could never complete our long summer runs if it were not that we are equipped throughout with rubber rollers."

Naturally we are proud of such a record but we might add that it isn't a bit unusual. Once these rollers are given an opportunity to demonstrate their ability they soon become a fixture in the pressroom.

Goodrich Printers' Rollers increase productive press time by eliminating the need for resetting and wash-up. They are impervious to temperature changes and will not melt. Regrinding adds further years to their normal long life. The better printing resulting from their use makes for increased sales in your advertising department and at the newsstand.

Goodrich Printers' Rollers can lower costs and improve printing on your presses. Write for prices and information, including names of users in your vicinity.

Goodrich *Printers'* Rollers

NILES & NELSON, INC., EXCLUSIVE DISTRIBUTORS
75 West Street, New York · 400 West Madison Street, Chicago, Ill.

ers, Rockwell, Brinell, etc., are obviously of limited usefulness in testing type, because hardness accompanied by excess brittleness may still give a favorable reading.

Methods for Keeping Foundry Type Clean

Among other factors which are of importance in determining type quality as it leaves the plant is the problem of maintaining it in a clean condition during the dividing, stocking and shipment operations. Type is moved from each machine to the dividing tables in

Determining the set-width size of a capital H type with micrometers in American Type Founders type casting department. Photo By Lusha Nelson.

varnished wooden galleys, or on long wooden slats for the smaller sizes, which are cleaned between each use. These galleys of a single character are stored on special racks until the complete alphabet has been cast. As soon as a completed run on type of a certain style and size has been divided into fonts or other classifications on order, the type is wrapped and sealed and carefully labelled to avoid errors in shipment.

Obviously, this brief review of procedure cannot indicate the more specialized problems that arise in casting particularly difficult characters, such as the long thin "I" in the Huxley Vertical face, where the surface area of the mold is abnormally high in proportion to the amount of metal being cast, or in various shaded letters and decorative characters. The casting of true foundry type, however, is an operation in which advantages arise from specialized manufacturing conditions. First, it permits the manufacture of type from a hard, tough metal of closely-controlled uniformity. Second, the casting equipment itself, operated by specialists, is designed and operated with *accuracy* as the primary requirement. Finally, inspection methods developed by years of experience eliminate type having the slightest visible or invisible imperfections.

Changes in Wood Machinery Organization

Henry A. Wise Wood has been elected chairman of the Board of Directors and Oscar C. Roesen has been made president of the Wood Newspaper Machinery Corporation by the Board of Directors.

John A. Isbell will serve in the capacity of senior vice president and works manager. J. P. Catlin is now second vice president and treasurer. C. Alfred Capen has been made secretary of the company.

Mr. Roesen, with offices in New York, will manage sales for the Wood Newspaper Machinery Corporation as well as serving as president. Henry A. Wise Wood, who has about reached his seventieth anniversary, will devote his talents toward converting daily newspapers from black-and-white into black and color printing.

HOW TO IMPROVE YOUR PRESSWORK WITHOUT INCREASING YOUR COSTS

An easy, quick method of improving presswork—with no extra cost—is to use FLEX dry mats. Incidentally, this method simplifies stereotyping, too. FLEX dry mats scorch quickly, mold well at low pressures, and make good plates at low casting temperatures. They produce sharp, clear halftone dots, clean type matter, and smooth, black solids. Try FLEX dry mats and note the improvement in your presswork. Samples will be sent to you on request.

FLEXIDEAL DRY MAT COMPANY
21 West Street, New York

FLEX
DRY MATS

THOROUGH AND UNIQUE IN DESIGN

In designing **The Premier Rotary Flat Shaver** all precedents of the past were completely ignored. Can you appreciate the full advancement that has been made?

Because it introduces vitally important improvements in **Precision Shaving of Flat Work, Premier** brings to you the biggest improvement ever accomplished in **Shaving Machines,** providing an entirely **New Degree of Performance** and operating economy.

STAHI NEWSPAPER SUPPLY COMPANY, Inc.
SALES AGENTS

1020 Crocker Street
Los Angeles, California

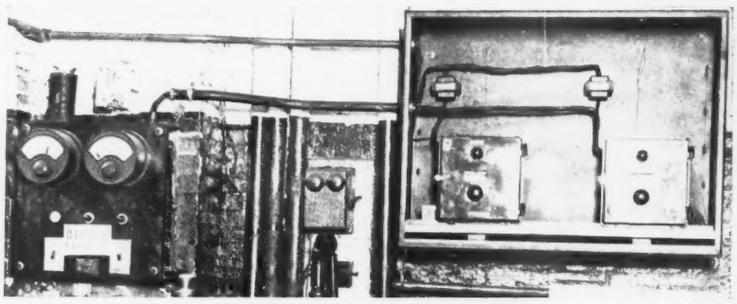
417 Oregonian Building
Portland, Oregon

Electric Eye

Regulates Stereotype Metal Temperature at Buffalo News

By JOHN W. ROSENBACH*

AFTER considerable experimentation, the Electric Eye has been adapted to the control of electric heat in the stereotype metal melting furnace in the plant of the Buffalo Evening *News* by the C. J. Tagliabue Mfg. Company. Due to the peculiarities of this particular type of melting furnace, there were many obstacles to overcome which required a great deal of research, extensive tests and refinements of the controllers before the control could be applied successfully to stereotype melting furnaces for successful operation.



Method of mounting photo-electric controllers for regulating casting and standby stereotype metal temperatures in Autoplate machine pots in plant of the Buffalo (N. Y.) Evening News. *At the time of mounting the casting and standby controller cases, it was decided to put them on a brick wall to avoid vibrations which might interfere with proper operation of the temperature regulating apparatus. The controller cases were set on a cushion on the floor of a large enclosing case. The door for the large case shown above has been removed to show the mounting method. The cushion consists of two soft pine boards, each 1¼ in. thick. Three sections of 1 in. thick sponge rubber were interposed between the pine mats.*
At the left, in addition to the volt and ampere meters may be seen the toggle switches which are thrown manually to cause the controllers to be transferred from casting to standby operation, or vice versa.

Among the difficulties which had to be overcome was to obtain a dead beat galvanometer of high sensitivity and resistance. A more sensitive thermocouple immersed in the metal was also required. Due to the close regulation of the controllers, the elimination of all vibrations from mechanical sources about the building which were liable to be transmitted to the controllers had to be provided for, too. It was decided to mount the controllers on the side wall of the building near the furnace, in a 12-gauge steel enclosing case with steel doors having glass covered openings, to permit full view of the controllers to the operators. Vibrations were overcome by placing two 1 1 4 in. soft pine mats, entirely free from knots, in the bottom of the cabinet. Each of these wooden mats were separated by three sections of 1 in. thick sponge rubber pads inserted between the pine mats. The controllers were then fastened to the top section which was ½ in. smaller in dimension all around than the bottom section. This arrangement

*Mechanical Superintendent, Buffalo Evening *News*, Buffalo, New York.

COLORADO RED NO. 432

For more than a quarter of a century Colorado Red has been given preference over other job reds by discriminating printers. It has stood the test for brilliancy, working quality and uniformity. It prints red even on colored paper stock. It works well on a wide range of papers. It is the most popular job red on the market and is imitated more than any other job red.

Manufactured and sold only by

GEO. H. MORRILL CO.
Division
GENERAL PRINTING INK CORPORATION
World's largest manufacturer of Newspaper Black and Colors
100 Sixth Avenue, New York City, N. Y.
Factories—Norwood, Mass. Tacony, Phila., Pa. Chicago, Ill. San Francisco, Cal.
Branches:—Boston, New York, Philadelphia, Detroit, Chicago, St. Louis, Minneapolis, Fort Worth, Los Angeles, San Francisco, Seattle

IN WEST AFRICA . . . 5000 miles from the helping hand of the serviceman . . . where a printing press must be dependable . . . it's a Kelly . . . built by American Type Founders

WITHIN EASY REACH... ALL THE CONTROLS of the ATF COMPOSING ROOM SAW

"TWIST OF THE WRIST" WORK HOLDER

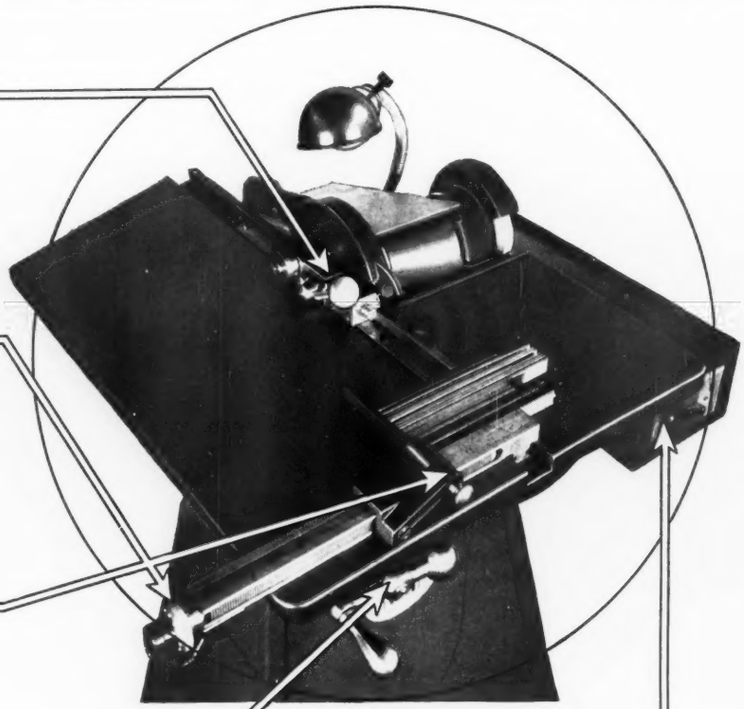
With an effortless forward motion of one hand the work holder locks the material so rigidly in position that it can't slip or snap out. A valuable time-saver that printers will especially appreciate.

POINTS THAT CAN'T BE CONFUSED WITH PICAS

When pica gage is set the measurement can be further adjusted to any desired number of points with an accuracy and certainty that leaves no doubt about the finished size. The simple revolving wheel at the left of gage changes the measure in points.

FINGER-TIP CONTROL OF PICA GAGE

A touch of the thumb and finger at the knob moves the pliant but unfailing spring, and the gage slides smoothly along its bar. Released it locks accurately and permanently at any desired pica or half pica measurement.



A TABLE THAT "STAYS PUT" WHERE YOU SET IT

Calibrated to save calculations; one revolution of the handle moves the table 6 points —up or down.

POWER SWITCH...AS SIMPLE AS AN ELECTRIC LIGHT

Power switch is in front of the operator for his safety and convenience.

A DEMONSTRATION

Practical men appreciate these improvements in saw design most when they see them in operation. Manipulate these time-saving, labor-cutting improvements with your own inquiring fingers. Your ATF branch will be very glad to arrange a working demonstration at your convenience. Ask an ATF man about it. You'll find more saw value than you ever thought could be produced.

AND THEN Look at the Price

Every feature listed above is standard equipment on the ATF Composing Room Saw. Ask your ATF salesman for a circular describing the additional advantages of the ATF Saw.

$295. Equipped with ¼ H. P. Motor

$320. Equipped with ½ H. P. Motor For Heavy Newspaper Work

Prices F. o. b. Elizabeth, N. J.

Types used: Stymie Medium and Franklin Gothics

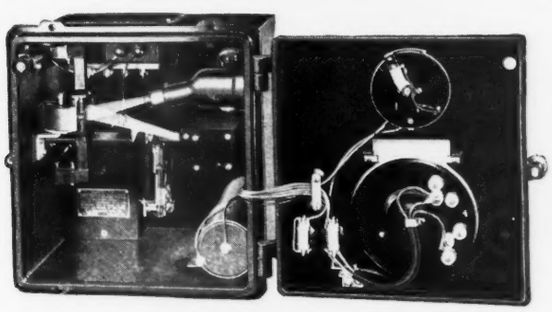
AMERICAN TYPE FOUNDERS

BRANCHES AND SELLING AGENTS IN TWENTY-FIVE PRINCIPAL CITIES

completely cushioned all mechanical vibrations and prevented their transmittal to the controllers.

The light source consists of a special lamp with a specially constructed filament which gives a narrow light beam about 1/32 in. wide and 5/8 in. high. This lamp is enclosed in an adjustable housing with lens and is constructed to give the proper focal center of the light beam which is reflected to a 45 deg. small mirror mounted on the galvanometer shaft. This mirror re-transmits the light beam to a small shutter opening of the Electric Eye or photo-electric cell. Between this mirror and the Electric Eye there is inserted at an angle of 45 deg. to the projected light beam, a piece of clear glass approximately 1/8 in. thick by 1 in. by 3 in. The function of this piece of glass is to deflect the light beam to the front of the controller, thus giving the operator a clear view of the light beam and the center hair line on the indicating glass. When the light beam is on dead center or the hair line, the light beam is transmitted to the opening of the photo-electric cell showing the On position of the controller. On each side of the center hair line is a small section of white ground glass; to the right is a red glass section and to the left a green glass section. As the light beam travels to the right side of the hair line (or red light) it indicates high temperature, and to the left side of the hair line (or green light) it indicates low temperature or variations over and under the 575 deg. F.

The temperature dial located beneath the indicating scale is adjustable for manual variation of heat by a simple manipulation with the temperature indication centered on the hair line. The thermocouple which governs the movement of the galvanometer is immersed in the hot metal and the heat causes the generation of



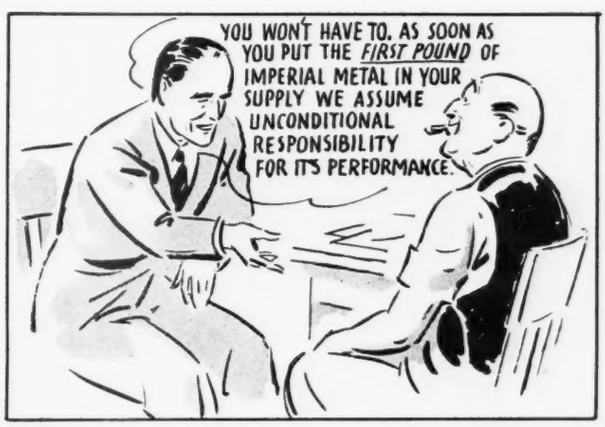
Interior view of Tag Controller with door open for controlling temperature of metal in stereotype pots in plant of the Buffalo Evening News. *In operation, the controller case door is closed to permit the metal temperature indicating glass to function. At the left is the galvanometer. At the right upper corner is the light source in its housing and the photo-cell is shown just below. A thermocouple immersed in the stereotype metal transmits a small amount of current to the galvanometer which in turn causes deflection of a mirror mounted at an angle of 45 deg. on the shaft of the galvanometer. The mirror when in proper position (according to the temperature of the metal) retransmits the light beam from the light source to the photocell. The current generated in the photo-cell by the action of the reflected light from the light source operates a small magnet contactor or relay which in turn actuates the contactor switches to cut in or out of circuit the pot heating elements. In other words, the metal temperature controls the position of the mirror on the galvanometer shaft to determine whether the light does or does not enter the photo-electric cell.*

When the metal temperature falls below 575 deg., the light is caused to be deflected into the photocell and the metal pot heating element switches are closed to raise the metal temperature. Whenever the temperature exceeds 575 deg., the light beam is deflected from the photo-electric cell and the switches open to disconnect the heating elements in the metal pot.

Between the mirror employed to deflect the light beam into the photo-electric cell and the cell itself is mounted at an angle of 45 deg. to the projected light beam a clear glass reflector which deflects part of the light beam to a red and green glass indicator panel cut into the door of the panel or controller housing. When the temperature of the metal is approx. 575 deg., the light band from the reflector shows through the center hair line of the red and green glass indicator. When the temperature exceeds 575 deg., the narrow band of light moves to the red glass. When the metal temperature falls below 575 deg., the light band swings to the green glass. In this way the controller indicates to the stereotyper the exact temperature of the metal.

Imperial Metal is Not an Experiment

THEN TAKE STEPS NOW TO GET BETTER PRINTING RESULTS
BUT I CAN'T MIX METALS-SUPPOSE SOMETHING GOES WRONG? I'M INTERESTED IN BETTER RESULTS, BUT I DON'T LIKE TO EXPERIMENT


YOU WON'T HAVE TO. AS SOON AS YOU PUT THE FIRST POUND OF IMPERIAL METAL IN YOUR SUPPLY WE ASSUME UNCONDITIONAL RESPONSIBILITY FOR ITS PERFORMANCE.

Imperial
METAL

THE IMPERIAL TYPE METAL CO.
Philadelphia · New York · Chicago · Los Angeles

an electric current. This current, minute as it is, is sufficient to deflect the moving member or armature of the galvanometer which carries the small 45 deg. mirror. This mirror deflects the beam of light from the light source to the Electric Eye (or photo-electric cell) whereupon a small electric current is generated. This current operates a small magnet contactor. The contactor in turn operates the contactor which controls the three large contactors on the furnace control panel, thus turning the heaters on and off at the predetermined temperatures. The controllers are housed in dust and light tight moulded cases which prevent light from outside sources entering and operating the cell.

Should the light source fail due to broken wire or the burning out of the lamp or power failure, the current generated from this light source in the photo-electric cell (or electric eye) will be off and the small contactor operated by the photo-electric eye will immediately drop out to the Off position and in turn the large furnace contactors will drop out, disconnecting the furnace heaters from their supply feeders. In case of power failure for a short time and the return of power to the feeders, the electric eye immediately functions on the return of current and puts the heaters back on the line to raise the heat of the metal to the predetermined temperature. In the case of failure of the light source, the contactor will disconnect the furnace from the feeder, but will not restore the service to the furnace heaters until the lamp has been replaced. Adequate signaling devices are provided to indicate to the observer that a failure has occurred and that corrective action should be taken.

To obtain the best operating results in the plant of the Buffalo *News*, it was decided to install two photo-electric cell potentiometer indicating controllers — one for the casting period and one for the standby period. The casting controller was calibrated and set for 575 deg. F. for the Off point and 570 deg. F. for the On point. The standby controller was set for 495 deg. F. for the Off point and 490 deg. F. for the On point. It was found that maintaining this standby temperature prevented the metal from freezing in the two automatic pumps of the autoplate casters.

Two controllers are used to simplify manipulation from cast to standby and because it is advisable to use a more sensitive thermocouple for the casting period, as more accurate control is desired during this period than is necessary during the standby period. To transfer from cast to standby, or *vice versa*, it is necessary for the operator to manipulate a simple toggle switch.

When the furnace is transferred from cast to standby and there is no addition or extraction of metal, it was found that, due to the low radiation losses in the furnace, it takes approximately three and a quarter hours for the temperature to drift down from 575 deg. F. (the casting temperature) to 490 deg. F. (the standby temperature) at which temperature it is necessary for the standby controller to put on the heat to raise the temperature to 495 deg. F. This drift varies from time to time as the temperature varies with the weather or the room temperature.

It was also found that a closer regulation on the standby has decreased the kilowatt hour consumption, or power costs. This was also true of the casting period as the close regulation of the control helped cut down the power demand costs.

EDES PHOTO-ENGRAVING

EDES SUPERFINE QUALITY ZINC

ZINC

THE STANDARD FOR MORE THAN 80 YEARS

THERE IS A LOT OF "KNOW HOW" . . .

THE EDES MANUFACTURING CO., PLYMOUTH, MASS.

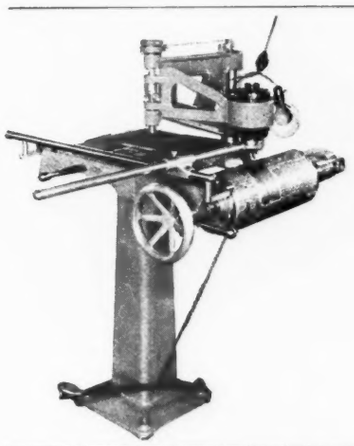
Stocks Carried by the Following Representatives

John H. Heimbuecher Metals Co., 514 No. Third St., St. Louis, Mo.
Gazzolo Drug and Chemical Co., 119 So. Green St., Chicago, Ill.
E. H. Walker Supply Co., Printcraft Bldg., Washington, D. C.
Selby Mohr, 883 Mission St., San Francisco, Cal.
C. S. Illingworth, 49 Springville Avenue, Buffalo, New York
Thompson-Hayward Chemical Co., 2228 Blake St., Denver, Colo.
Thompson-Hayward Chemical Co., 909-2nd St. So., Minneapolis, Minn.
Metzger Photo Supply Co., 1091 So. Main St., Akron, Ohio
G. C. Dom Supply Co., 125 East Pearl St., Cincinnati, Ohio

Equipment

New Routing Machine

The J. A. Richards Company announces the introduction of a new pedestal type combination Curved and Flat Plate Routing Machine for all printers and boxmakers using curved plates. Saddles for any sized curved plates can be furnished, so that firms having presses with different diameter plates can rout the various curves. The construction is of heavy design. It is claimed that



View of Richards New Pedestal Type Curved and Flat Plate Routing Machine.

no time is required for changing from flat to curved plates.

All operating controls are mounted for minimum exertion on the part of the operator while doing the work.

Further information may be obtained from the J. A. Richards Co. direct or in care of *Printing* EQUIPMENT *Engineer.*

Improved Cross Cylinder-Platen Press Perforator-Scorer

An Improved Cross Cylinder-Platen Press Perforator-Scorer has been announced by John H. Davidson of the Davidson Perforator Corporation. The device will "blind" perforate in either vertical or horizontal position or in both directions at the same time on platen presses when using the desired number of units. It will operate across the cylinder of any press.

The Perforator-Scorer locks up in the form with type or plates and perforates or scores only when either the cylinder or platen goes on impression. The body is 18 points thick and is so constructed that the blade may be brought within 8 points of the type matter or plates.

The Improved Cross Cylinder-Platen Press Perforator is made up in sets of three interchangeable pieces, as follows: 5½ in., 8½ in. and 11 in., so that combinations

View of Davidson Perforator-Scorer Unit

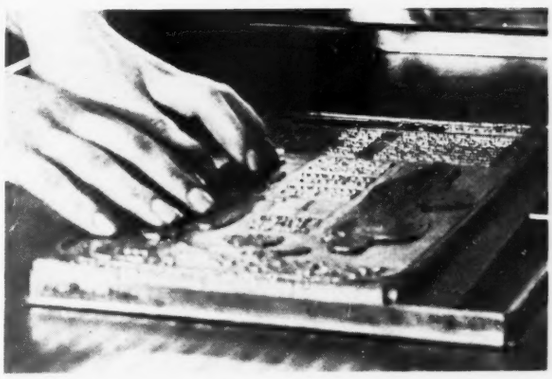
of 14, 16½, 17, 19½ and 22 in. can be secured when two units are butted together.

Different types of blades are furnished, such as 2 and 4-to-the-inch Snap-Out and regular 6 and 12-to-the-inch perforator blades.

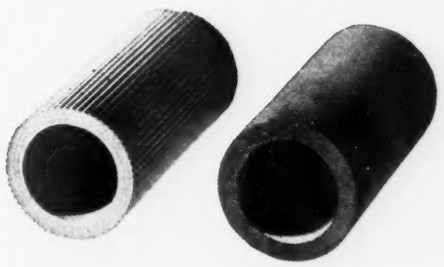
Booth's Printers' Zink Cut Cement

Is an economical means for fastening cuts of any kind to wood or metal base. Use sparingly and rotate the cut slightly while pressing it down on the base. SMALL quantities applied in patches and properly squeezed out to film thickness will anchor cuts securely to bases.

50 cents per large tube; $5.00 per dozen tubes; $4.00 per dozen tubes in gross lots.



Booth's Green Rubber Keyboard Rollers



Can be applied to rubber roll shafts with minimum effort to provide a long lasting and persuasive cam tread. Compounded from highest quality materials for dependable service.

$1.30 per pair; $7.00 per dozen; 55 cents each in lots of 100. Crepe or corrugated tread — as you prefer.

BOOTH'S PHOTOENGRAVER'S CONCENTRATED RUBBER STRIPPING CEMENT flows smoothly and dries quickly

The E. A. Booth Rubber Co.

364 Rockefeller Bldg. Cleveland, Ohio

Are You Cents-able in Plant Expense?

NEWSPAPERS spend cents for dry mats where they spend thousands for other equipment, materials and services. Yet how often we see publishers proud and lavish about big investments and indifferent or peevish about the cents that go so far toward making the larger expense effective.

No newspaper product is better than its stereotyping and no stereotyping is better than the medium from which the plates receive their impression.

For dependable stereotyping rely on Certified Mats, made in the U. S. A.

CERTIFIED DRY MAT CORPORATION

338 Madison Ave. New York, N. Y.

Certified DRY MATS

Engraving Rubbers

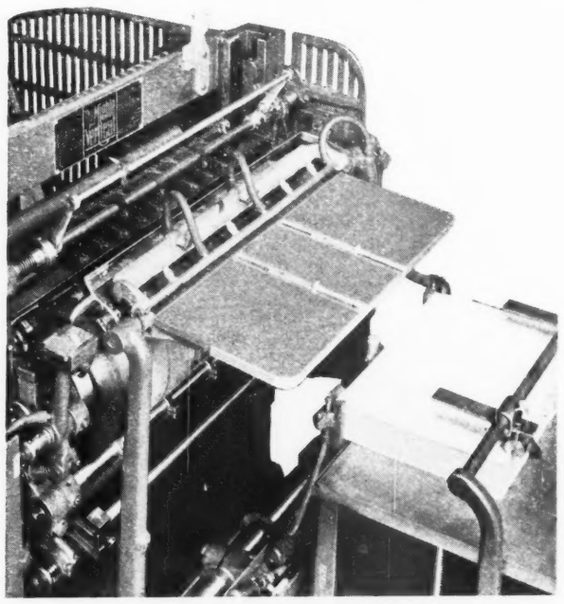
A new standard line of engraving rubbers for the printing of cloth and paper bags, as well as corrugatec box containers has been announced by the Mechanical Goods Division of The B. F. Goodrich Company, Akron, Ohio. In this line will be consolidated the Goodrich and Diamond engraving gums previously supplied which makes possible an improved product through the adoption of certain standard construction features. A complete warehouse stock will be maintained on the seven grades making up this line.

In addition, The B. F. Goodrich Company also offers a line of specialty engraving rubbers for general letterpress printing suited to hand-engraved rubber plates.

Transfer Table for Vertical

E. A. Verrinder, Mechanical Engineer, has placed upon the market recently a Transfer Table for Miehle Vertical presses which is equipped with built-in aluminum slides. Adjustable backstops position the tail edge of the sheet to prevent jumping away from the front guides. The manufacturer claims the stops may be set accurately for any size sheet and no further adjustments will be necessary until the end of the run. The regular stops extend far enough to accommodate a 13½ in. sheet and will take care of all but very small sheets, for which an extension stop is provided.

The table is sturdily constructed of 3-ply hardwood and aluminum finished with waxed lacquer surfacer. An occasional rub down with ordinary auto wax is recommended to keep the finish in good condition for the best results in feeding. The Verrinder Table is attached quickly in the same manner as the standard table.



Verrinder Transfer Table installed upon a Miehle Vertical press.

Another special transfer table having no backstops has been designed for use on presses upon which curled stock is being run continuously. It is claimed this table applies the principle of the ball and tape sheet drive to the Vertical type of press to keep the sheet at the front guides even if the back edge may be curled badly.

Further information may be obtained by addressing E. A. Verrinder direct or in care of *Printing* EQUIPMENT *Engineer.*

Continued on page 32

Innovation In Preparing Craftsmen Club Programs

An innovation in preparing educational programs for Craftsmen Clubs is to be promoted by the Educational Chairmen of the Columbus, Dayton, Indianapolis and Cincinnati Clubs. Chairmen of these clubs met recently in Dayton, Ohio, to discuss and formulate plans. It was decided to offer speakers the opportunity of addressing all four clubs in one trip. Each club through the program committee has agreed to arrange educational meetings so that a speaker can address each one of the clubs on successive nights.

O. G. Fricke, District Representative of the International Association of Printing House Craftsmen, was present at the meeting, and complimented the Chairmen on their plans. The Dayton Club played host to the visiting Craftsmen.

Speakers on subjects of interest to Craftsmen are invited to write Lee Augustine, 436 Commercial Square, Cincinnati, Ohio, for details concerning the plan of these four aggressive Craftsmen Clubs.

Linotype's New Faces

The Mergenthaler Linotype Company announces Metrolite Italic and Metrothin Italic, with both faces already available in the 24- and 30-point sizes and other sizes in process of manufacture. Both the 24- and 30-point sizes of both faces, says C. H. Griffith of the Mergenthaler organization, will run in a 72-channel layout, and, with the exception of the 24-point Metrothin Italic "m," the lower case of both of the 24-point sizes will run in the cap side of 90-channel magazines.

Those who assisted in the formation of the program whereby speakers may be invited to address Craftsmen Clubs on successive nights through cooperative planning are: Front row, left to right—O. G. Fricke, District Representative; Donald Moon, Dayton, President of the host Club; Walter Zopf, Educational Chairman of the Dayton Club. Second row, left to right—M. B. Bose, Lafayette, Educational Chairman, Indianapolis Club; Lee Augustine, Cincinnati, Educational Chairman, Cincinnati Club; Robert Neff, Dayton, Vice President, Dayton Club; G. M. Ginn, Columbus, Educational Chairman, Columbus Club.

Leach Steps Up

Harry W. Porte, manager of the San Francisco Agency of the Mergenthaler Linotype Company, announces that Eugene R. Leach, who has been a member of the San Francisco agency staff since 1930, has been made assistant to the manager of the agency.

To Publishers seeking Improved Printing we unqualifiedly recommend

CLARK'S PRECISION DRAWSHEETS

KLEERPRINT . . . . . .

PRINT CLEARER . . . . . WEAR BETTER . . . . . IMPROVE PRINTING . . . . .

KLEERPRINT

The standard drawsheet of the publishing trade. Fine quality adapted for either rotary presses or flat-bed work.

IMPERIAL VENEERED

A polished satin finish drawsheet, specially designed for service and durability. Built to give longer life and better results.

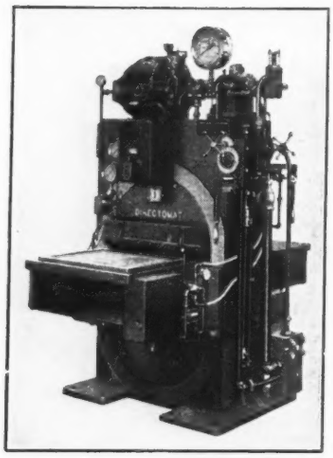
SILVERTOP

The tympan with the silver finish. A favorite for years. Successfully used on most of the large dailies.

Clark's Precision Drawsheets solve many pressroom problems as they provide better printed newspapers. Publishers and mechanical superintendents should investigate the advantages of this equipment now in use on many Pennsylvania newspapers.

AMERICAN PUBLISHERS SUPPLY

P. O. BOX 131, WEST LYNN, MASS.



The DIRECTOMAT Hydraulic Matrix Press

is one of the most important links in the successful production of NEWSPAPER COLOR WORK, as evidenced, among others, by the following DIRECTOMAT users:

Chicago Herald-Examiner, **outstanding for their "March of Events", "Stage and Screen", "Society", "Fashions" and advertising sections.**

New York News Syndicate, **one of the leading producers of color and black and white comics.**

Atlantic Electrotype & Stereotype Co., New York, **one of the largest producers of color comic section advertising.**

According to surveys, newspaper color increases readership from 50% to 150%, and in some instances, 300% and upwards, so that about 25% of the readers attracted by color cost the advertiser absolutely nothing.

Encouraged by the unqualified success of the DIRECTOMAT in daily use at the *Milwaukee Journal,* even smaller papers such as the *Pontiac Daily Press* have recently installed DIRECTOMAT Matrix Presses. Their enterprise has been rewarded by vastly improved printing results.

IT WILL PAY YOU TO INVESTIGATE THE DIRECTOMAT

Demonstrations may be arranged in almost any principal city.

Lake Erie Stereotype Equipment Company

Division of Lake Erie Engineering Corporation, Buffalo, N. Y.
KENMORE STATION, BUFFALO, N. Y.

Selling Agents:

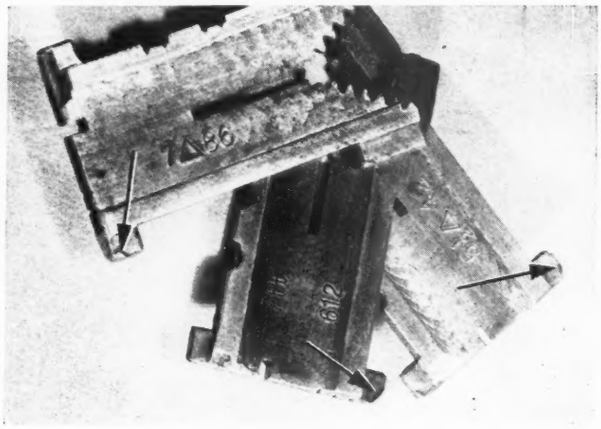
Flexideal Dry Mat Company - 21 West Street, New York
B. O. Henning Sales Agency - 608 S. Dearborn St., Chicago
Stahi Newspaper Supply Company, Inc. - - Los Angeles
Toronto Type Foundry Company, Ltd. - - Toronto, Canada

Abnormal Burring of Matrix Lugs

BURRING of line-composing machine matrix lugs cannot be prevented but it can be minimized by eliminating the causes for excessive burring. Burring as referred to here does not mean the cutting action of the mold aligning rail against the lugs which is due to overset lines or misadjusted parts, nor the scraping action caused by misaligned first elevator jaw in relation to the delivery and transfer channels.

Most of the burring of matrix lower front lugs will be caused from passage of the matrices through the assembler entrance, the assembler chute and the assembling elevator. The lower matrix lugs are the vulnerable points and if burrs should appear suddenly upon the lower front lug there is some abnormal cause.

It is a well-known fact that the continuous striking of a steel hammer upon brass will have a hardening



effect upon the brass. The constant repetition of the hammer blows seems to increase the density of the metal. In the same way, a like effect is obtained if a piece of brass impinges repeatedly upon a harder object as in the case of matrix lugs striking upon or against machine parts. When matrices are new, all corners are more or less sharp and square and in striking the various parts when circulating through the machine, the lug corners are flattened out so as to conform to the angle of impact. After a time, the rate of the peining action upon the matrix lug will be retarded because a greater surface of increased density will be presented to the obstruction.

In the illustration are shown three matrices. The arrows indicate burrs on the lower left corner of the lower front matrix lugs. The machinist in charge of the plant, after due investigation, determined that as each matrix entered the assembling elevator, the lower front lug struck the right leg of the elevator gate. The fact that the burr on the matrix lug was caused by an angular contact of the lug with some projecting object helped locate the source of the trouble.

In many cases, the lower portion of the assembler chute plate (or cover) has become sprung or twisted in such a way that it does not lie flat against the chute rail. This will permit matrix lugs to strike the elevator gate leg as matrices pass from the assembler chute into the assembling elevator.

After the chute cover has been fitted to rest in position flatwise against the chute rail it is a good idea to bevel with a file that section of the inside corner of the assembling elevator gate right-hand leg opposite the pathway of the matrices as they pass from the assembler chute into the elevator.

Other important adjustments designed to conserve wear of matrix lugs are as follows:

The lower extremity of the assembler entrance cover should fit against the partitions and the top edge of the chute plate (or cover) should project slightly outward so the lower front matrix lug will not strike the chute cover.

Both the front and back buffers in the assembling elevator should be maintained so each buffer will be of the same relative height.

Maintain assembling elevator front and back rail detaining plates to fit closely against the assembler chute rails. In many instances, however, the chute rails opposite the detaining plates will have become worn to such an extent that the matrix lugs will burr through cuffing the detaining plates.

As matrices leave the magazine on some of the older machines, they are deflected downwardly by a glass plate or rigid metallic surface in the assembler entrance cover. On these machines a strip of spring brass approx. 0.010 in. thick or sheet celluloid may be fastened at the top of the cover to deflect the matrices in their downward path. It is desirable, however, to bend the cover brackets outwardly a slight distance to provide room in which to let the spring brass or celluloid strip hang loosely so that matrices will strike a springy surface.

Bingham Installs $30,000 In New Equipment

Thirty thousand dollars' worth of new roller-making machinery has been installed by the Samuel Bingham's Son Manufacturing Company, nationally known manufacturers of printing and offset rollers.

Production demands have steadily increased during recent months and in order to keep plant operations in step with sales volume, the installation of new machinery was necessary at the main plant in Chicago and also at the branch plants in different sections of the country.

Causes of Wrinkles

By R. O. Vandercook

Wrinkles *do not* occur on proof presses when the form is level and no part of it is over or under 0.918 in. high and when the gripper edge (if a cylinder press is used) is perfectly flat and the tympan is not too soft.

Wrinkles may occur when some part of the form is over type high. The high part of the form may cause the sheet to draw in because of the extra indentation and rules or type are so placed in the form that the sheet is held in the drawn-in position and therefore cannot straighten out without wrinkling.

Wrinkles may occur when there are low spots in the form requiring an extra amount of overlay or a heavy soft tympan is used to make the low spots show up. The sheet is then forced down and wrinkles may result. The more the indentation of the sheet caused by a too soft and overpacked cylinder the more is the liability of wrinkling. A hard tympan is less liable to produce wrinkles than a soft tympan.

For printing page proofs in many of the larger newspaper offices, some presses are so equipped that proofs can be taken when the form is locked in type-high chases. If these chases are bent and battered or any part of the frame is over type-high, the chases may be the cause of wrinkles. It is better to have the stereotyping chases a few thousandths lower than type high.

BURGESS CHROME MATS

Make Your Paper Easier to Read

Burgess Chrome Mats assure sharp, clear reproduction of newsprint, halftones and advertising copy. They make papers better to look at... easier to read. And best of all they save money, time and trouble. Ask us to demonstrate these facts in your own stereotype department.

BURGESS CELLULOSE COMPANY FREEPORT, ILLINOIS

CHROME MATS A Laboratory Product

Pacific Coast Representative, RALPH LEBER, 426 Polson Bldg., Seattle, Washington

BURGESS CHROME MATS

BURGESS CHROME MATS

BURGESS CHROME MATS

The Montreal Daily Star.
POSTSCRIPT
MARITIME PORTS PROTESTING PACT
Foreign Cargoes Gain New Route
Chinese Governors Oppose Separatist Move
Rich Business Circles Fear Stability Menaced

A Report on Experience with the LUDLOW

The publisher of a newspaper considering the installation of new display composition equipment wrote to J. M. Letham, superintendent of the Montreal Daily Star and one of the outstanding newspaper mechanical executives of Canada, asking his opinion of the Ludlow.

On the basis of ten years of experience with the Ludlow, Mr. Letham wrote his inquirer as follows:

"In answer to your query re Ludlow equipment, which has been in operation in our composing room for a number of years, it gives me great pleasure to recommend this machine, as it has certainly proven its worth in this department—in fact, we could not do business without it.

"There are several good features about this machine, such as a new face of type at each setting, which improves the appearance of your papers; setting up of an unlimited number of columns of ads with the assurance that you will never run short of type; slugs that will stand up under heavy pressure of mat roller where dry mats are being used; an equipment that can be installed on the floor in a compact space; and last, but not least, a system that is economical to operate, with the compositors operating the machines as their greatest boosters."

Full information regarding the advantages the Ludlow will bring to your composing room will be gladly supplied on request.

LUDLOW TYPOGRAPH CO.
2032 CLYBOURN AVENUE + + CHICAGO, ILLINOIS
Set in Ludlow Tempo Medium and Tempo Bold Condensed

Wright Joins Goss

Lloyd Dell (Bill) Wright has joined the sales organization of The Goss Printing Press Company, covering the Atlantic coast states, from Pennsylvania and New Jersey south, with headquarters at Washington, D. C. He replaces W. E. Becker who formerly covered this territory and recently resigned to become mechanical superintendent of the Washington Post. Until recently Mr. Wright has been associated with Niles & Nelson, distributors for Goodrich rubber rollers.

Knoll Now With Rouse

H. B. Rouse & Company, 2214 Ward Street, Chicago, announces the appointment of Harry W. Knoll to the sales and service department. For the past six and one-half years, Mr. Knoll has been with the B. F. Goodrich Company. His experience serving printers dates back to his employment prior to his enrollment in the University of Illinois. He was graduated in 1929. Harry W. Knoll is the son of W. J. Knoll, vice-president of H. B. Rouse & Company.

Harry W. Knoll, Who Has Become Associated With H. B. Rouse & Company in Sales Capacity.

Dot Etching

By J. S. MERTLE*

The subject of dot etching continues to be of increasing interest to lithographers. As is well known, dot etching implies the tone correction of lithographic halftones by progressively and systematically reducing the dot size of a halftone positive on a suitable dry plate, such as the Cramer "Super Contrast." The method is therefore closely analogous to the staging and reetching performed in photoengraving for the production of a relief copper halftone.

The most interesting and recent advancement in dot etching is the electrical process of etching photographic images, invented by John Trickey and his associates of the Forbes Lithograph Manufacturing Company, of Boston, Mass.

In the Forbes process, the dry-plate halftone positive is first flat etched in the regular manner of dot etching, but high-lighting and reetching of the image is performed with the aid of controlled electrolysis. The emulsion is impregnated or saturated with a special solution; a metal stylus, electrified with a current of low voltage, is then passed over the dot formation in sweeping strokes, similar to those used in the execution of a crayon drawing.

The electrified stylus, pressed into contact and moved over the surface of the gelatin emulsion or film, induces electrochemical conversion of the developed silver, which

*Director Graphic Arts Division, The G. Cramer Dry Plate Company. Abstracted from paper presented at the Cincinnati meeting of the Graphic Arts Research Bureau, June 19-21, 1935.

is productive of a peripherical attack on the dot, with a resulting reduction in size of the dot formation wherever the stylus has contacted the image.

We have witnessed some very pleasing results with the Forbes process, especially when applied to high-quality four-color work. The description just given is the first technical information imparted to the public, and is due to the courtesy and direct permission of the Forbes Company.

Syl Sennett Passes

Sylvester J. Sennett, 55 years of age, passed away early in November from a heart attack in a Chicago hospital. Mr. Sennett had been an employe of the Chicago *Tribune* for over 30 years and for the past six years had been chief linotype machinist.

Appointed Typographer

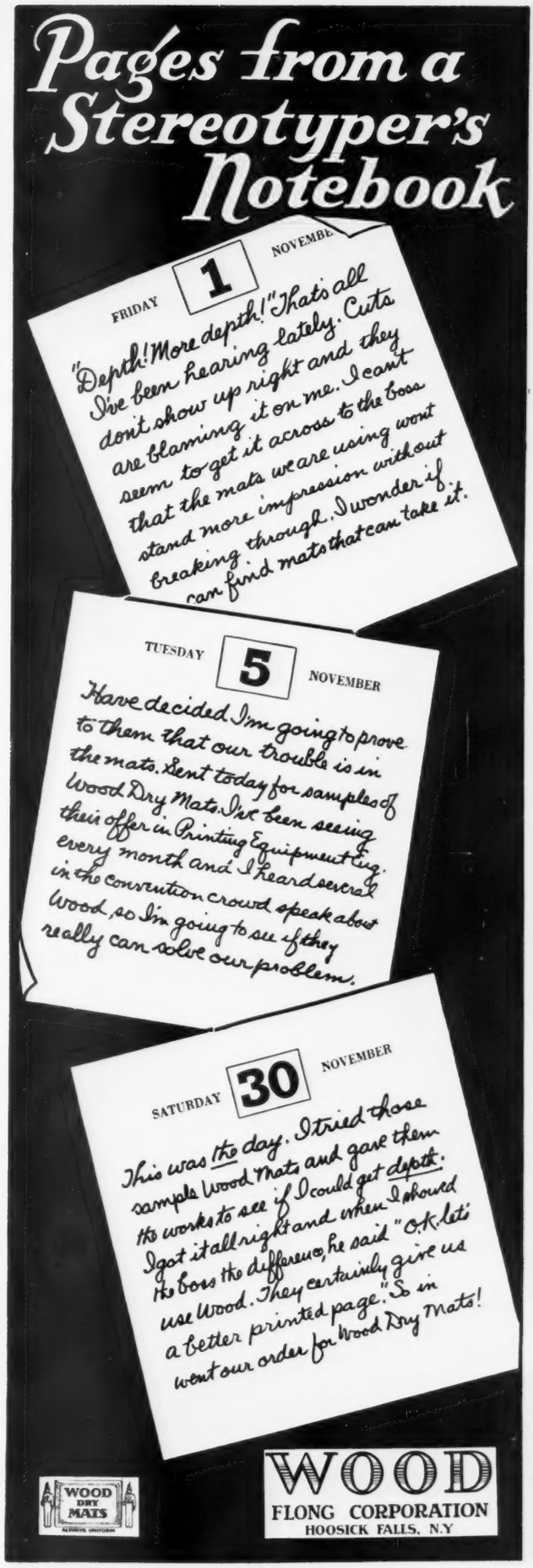
Public Printer A. E. Giegengack has announced the appointment of Frank H. Mortimer of Rochester, N. Y., as Director of Typography for the Government Printing Office. Mr. Mortimer assumed his new duties on October 1. This is in line with the Public Printer's desire to improve the product of the world's largest printing plant. Mr. Mortimer, who was selected from the Civil Service register for Typographers, is a native of Rochester, N. Y., where he received his early printing training from Charles Newman of the Rochester Technical High School.

While employed in various positions his interest centered on Typography, and through the suggestions of Hubert Canfield of the Canfield Tack Company, in 1927

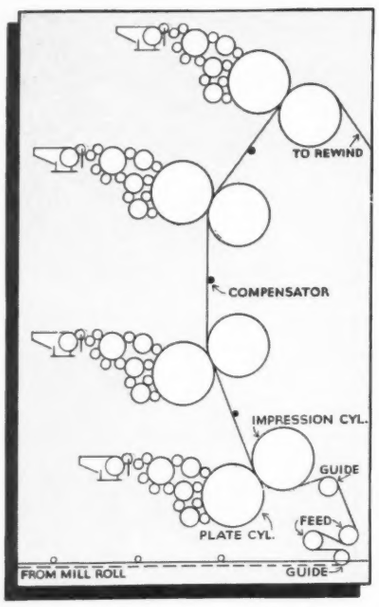
Frank H. Mortimer, first typographer for the Government Printing Office.

he decided upon a typographical career. As assistant to William Hegle, Typographer and Art Director of the John P. Smith Company, Mr. Mortimer first became recognized as a creator of fine printing. Later he became Director of Typography for the Baker Jones Hausauer Company of Buffalo, N. Y., where he supervised the publication of college yearbooks, catalogues, and the usual run of advertising and direct mail printing. It was because of this training that Mr. Mortimer was selected as first Typographer of the United States Government Printing Office.

When writing to Advertisers please mention
PRINTING EQUIPMENT ENGINEER


Pages from a Stereotyper's Notebook
FRIDAY 1 NOVEMBER
"Depth! More depth!" That's all I've been hearing lately. Cuts don't show up right and they are blaming it on me. I can't seem to get it across to the boss that the mats we are using won't stand more impression without breaking through. I wonder if I can find mats that can take it.
TUESDAY 5 NOVEMBER
Have decided I'm going to prove to them that our trouble is in the mats. Sent today for samples of Wood Dry Mats. I've been seeing their offer in Printing Equipment Eng. every month and I heard several in the convention crowd speak about Wood, so I'm going to see if they really can solve our problems.
SATURDAY 30 NOVEMBER
This was the day. I tried those sample Wood Mats and gave them the works to see if I could get depth. I got it all right and when I showed the boss the difference he said "O.K. let's use Wood. They certainly give us a better printed page." So in went our order for Wood Dry Mats!
WOOD DRY MATS
WOOD
FLONG CORPORATION
HOOSICK FALLS, N.Y

"BOW" PRINCIPLE IN KIDDER STACK-TYPE PRESS PUTS COMPENSATOR ROLLS ON CLEAN SIDE OF PAPER



"THREE POINT PRESS" . . . bow-type . . may be 5 colors

For a New England wrapper manufacturer, U. P. M.-Kidder Press has just built a 36"x65" 4-color stack-type press using the "bow" principle—a new and important development in press-making, necessitated by the use of heavy colors.

By a curving of the cylinder arrangement, it has been possible to place the compensator rolls on the back of the web and still avoid wiping from plates onto the sheet.

Thus, there can be no smearing of ink on the paper from compensator rolls — no more necessity for continually cleaning compensator rolls. Nothing touches the ink side except the plates.

OTHER FEATURES

(1) Kidder's patented form roller setting device, offering complete accessibility for accurately setting form rollers without using roller gauges or resorting to bumping.

(2) Constant tension rewinder — no attention needed.

(3) Additional vibrators allow laying on of heaviest solids without reducing speed.

For further information on this or other "Three Point" Presses, write the Engineering Department at Dover, N. H.

U.P.M.-KIDDER PRESS COMPANY *Incorporated*

PRINTING MACHINERY

Chrysler Bldg. Fisher Bldg.
DOVER, N.H. NEW YORK CHICAGO TORONTO

One and Two-Sheet Rotaries . . . All Size Adjustables . . . Automatic Bed and Platen Presses . . . Golden Arrow Straight-Line Bronzer . . . Multi-Color Web Presses . . . Slitters and Rewinders . . . Chapman Electric Neutralizer . . . Special Printing Machinery of All Kinds. 3803

Patent Papers:

Printed copies of patents are furnished by the United States Patent Office at 10 cents each. Address the Commissioner of Patents, Washington, D. C., and enclose 10 cents for each patent paper wanted.

Patents

Apparatus Included for Preventing Ink Offset by Means of Ozonators

NOVEMBER-DECEMBER

Bookbinding:

2,017,282. AUTOMATIC SHEET HANDLING ARRANGEMENT IN STITCHING MACHINES. Oscar Kleinschmit and Oskar Mueller, Leipzig-Plagwitz, Germany, assignors to Gebruder Brehmer, Leipzig-Plagwitz, Germany, a German firm. Application September 17, 1930, Serial No. 482,638. In Germany June 6, 1930. 24 Claims. (Cl. 112—21)

1. In a stitching machine, automatic sheet-handling mechanism comprising a reciprocating slide, a sheet gripper carried by the slide, means for opening the gripper, and means for introducing a sheet into the jaws of the gripper, the opening-means being adapted to be removed from the path of travel of the sheet.

2,017,462. BOOK TRIMMING MACHINE. Paul E. Kleineberg, Easton, Pa., assignor, by mesne assignments, to T. W. & C. B. Sheridan Company, a corporation of New York. Application January 13, 1932, Serial No. 586,338. 18 Claims. (Cl. 164—48.)

1. In a book trimming machine, the combination of a longitudinal table for supporting a succession of stacks of books, and having an upstanding longitudinal guide or wall at one side against which the back edges of the stacked books may abut during travel, and means for advancing the stacks longitudinally from station to station while resting on the table in abutting contact with the guide, trimming mechanisms disposed at different stations, one of the trimming mechanisms having a longitudinal knife for trimming the front edges of the stacked books, and another of the trimming mechanisms having one or two transverse knives for trimming an end edge or edges of the stacked books.

2,017,512. GATHERING AND STITCHING MACHINE. Daniel Reiser and Orin J. Reiser, Shaker Heights, Ohio. Application February 23, 1932, Serial No. 594,420. 17 Claims. (Cl. 1—7.)

1. A book-binding machine having a gathering station and an operating station for signatures, a single conveying element traversing both the stations, projecting elements carried by the conveying element and between which the signatures are introduced, a reciprocating crosshead for advancing the conveying element in a step-by-step manner, chain means operatively connecting the crosshead and the conveying element, a dog carried by the crosshead, and means for selectively reciprocating the crosshead and moving the dog into and out of engagement with the chain means independently of any movement of the crosshead as steps respectively precedent and subsequent to the moving of the conveying element.

2,020,068. METHOD OF AND APPARATUS FOR FEEDING SIGNATURE HANDLING MACHINES. Oscar Kleinschmit and Walter Geissler, Leipzig-Plagwitz, Germany, assignors to Gebruder Brehmer, Leipzig-Plagwitz, Germany, a German firm. Application October 16, 1930, Serial No. 489,220. In Germany May 15, 1930. 20 Claims. (Cl. 270—54.)

1. In a signature-handling machine, in combination, a main frame, a signature carrier rotatably mounted in the main frame, at least one stitcher head, a lay table, feed mechanism arranged between the lay table and the signature carrier, rotary means for opening the signatures during their transit through the feed mechanism, and means for positioning the signatures beneath the stitcher head.

Composing Machines:

2,017,422. DEVICE FOR APPLYING GRANULAR MATERIALS. Orlando D. Shonnard, Upper Montclair, N. J., assignor to Joseph Dixon Crucible Company, Jersey City, N. J., a corporation of New Jersey. Application February 4, 1935, Serial No. 4,771. 5 Claims. (Cl. 221—32.)

1. A device for applying granular material on surfaces, comprising a reservoir having resilient walls and a threaded mouth, a closure threaded into the mouth of the reservoir, the inner end of the closure having a recess, a plug in the inner end of the closure, a tubular nozzle rotatably mounted in the closure with its inner extremity pressed against the plug to close it, the inner portion of the nozzle having an aperture in the side wall thereof, resilient means located in the recess for laterally pressing the inner portion of the nozzle against the wall of the recess, the wall of the recess serving to close the aperture in the inner end of the nozzle when the nozzle is turned.

2,020,269. SLUG GALLEY FOR TYPOGRAPHICAL MACHINES. William Williams, Brooklyn, N. Y., assignor to Intertype Corporation, Brooklyn, N. Y., a corporation of New York. Application November 5, 1934, Serial No. 751,614. 18 Claims. (Cl. 199—61.)

1. In a slug casting machine having a mold and means for ejecting a slug forwardly edgewise therefrom in vertical endwise position, a galley for receiving the ejected slug, a chute for conveying the slug by gravity to the galley and means for delivering the slug sidewise to a position for dropping it into the chute.

2,021,114. MAGAZINE STORAGE RACK. Herman R. Freund, Brooklyn, N. Y., assignor to Intertype Corporation, Brooklyn, N. Y., a corporation of New York. Application April 9, 1934, Serial No. 719,799. In Great Britain March 4, 1934. 9 Claims. (Cl. 276—44.)

1. A rack for storing matrix magazines having transverse members on their under sides near the upper end thereof and longitudinal guide bars extending below the transverse members, comprising a frame having a plurality of supports for supporting the magazines in flat inclined positions, each of the supports having retaining pieces positioned thereon to engage the upper transverse member on the respective magazine to support the latter when partially withdrawn from the rack and guide means below the level of the retaining pieces to cooperate with the longitudinal guide bar on the respective magazine.

2,018,132. SLUG CASTING MACHINE. George P. Kingsbury, Hollis, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application May 31, 1934. Serial No. 728,203. 22 Claims. (Cl. 199—49.)

1. In a slug-casting machine having a vertically movable transporter normally operative to present a composed line of matrices in casting relation to the mold, the combination of a holder detachably secured to a stationary member of the machine for sustaining at the casting level a hand stick wherein a composed line of matrices is supported, and means carried by the holder for arresting the transporter above its lower level when the hand stick holder is in use to prevent interference therewith.

2,018,368. END-OF-LINE INDICATOR. Ross A. Lake, Chicago, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware. Application July 13, 1932, Serial No. 622,180. Renewed January 12, 1935. 21 Claims. (Cl. 178—25.)

1. In combination with a telegraph transmitter including a cyclically operating cam shaft, a control switch actuated by the cam shaft and a carriage return signal key, of a signal recording mechanism including a progressively operative signal recorder under control of the switch and a cumulative signal indicator, means for actuating the indicator under control of the recorder, and means for restoring the recorder under control of the key.

2,019,168. LINE COMPOSING MACHINE. William Ackerman, Towners, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application June 7, 1934, Serial No. 729,417. 9 Claims. (Cl. 199—29.)

1. In a typographical composing machine, the combination of an assembling elevator having means for supporting matrices at different levels therein, means for delivering matrices onto the matrix supporting means to form a type line and means for automatically varying the relationship between the position of the elevator and the position of the matrix delivering means while the line is being formed.

2,019,505. KEYBOARD PERFORATOR. Albert H. Reiber, Chicago, Ill., assignor to Teletype Corporation, Chicago, Ill., a corporation of Delaware. Application June 4, 1932, Serial No. 615,329. 14 Claims. (Cl. 164—112.)

1. In a keyboard perforator, a plurality of keylevers, a plurality of permutation bars perforating elements, an interference member individual to each of the bars and set in varying combinations upon the operation of the permutation bars, means for operating the elements as selected by the members including a power-driven element, and means comprising a double trip-off latch responsive to the operation of a keylever for releasing the power driven element and operated cyclically for rendering the power driven element ineffective.

2,019,856. SLUG CASTING MACHINE. John H. Hilpman, Hollis, N. Y., assignor to Mergenthaler Linotype Company, a corporation of New York. Application July 14, 1934, Serial No. 735,156. 11 Claims. (Cl. 199—32.)

1. In a typographical machine, the combination of a movable line transfer carriage adapted at times to be arrested in a waiting position, means for operating the carriage, and means for reducing the speed of the carriage at a point in advance of its waiting position.

Feeding, Folding, Delivery:

2,017,184. CUTTING WEBS OF PAPER. Kurt Riess, Wolfen, Kreis Bitterfeld, Adolf Knodel, Dessau In Anhalt, and Rudolf Klaus, Wolfen, Kreis Bitterfeld, Germany, assignors to Agfa Ansco Corporation, Binghamton, N. Y., a corporation of New York. Application September 28, 1933, Serial No. 691,410. In Germany October 4, 1932. 1 Claim. (Cl. 164—48.)

An apparatus for automatically cutting paper provided with marks comprising an axle, a feed drum mounted on the axle the feed drum being provided with two arcs hinged to the drum, a cutting device provided with a knife cutting against the feed drum, an illuminating device projecting two pencils of light on the path of the marks at a distance from each other substantially corresponding with the length of the marks, a mask for masking the pencils of light, an eccentric mounted on the axle actuating the knife and the mask by a rod connection so that the pencils of light are projected on the paper web a short interval before cutting, two photoelectric cells arranged so as to receive the pencils of light after reflection by the paper, an amplifier connected with the photoelectric cells, a tappet in contact with the arcs, a rack provided with a wedge in contact with the tappet, a reduction gearing for displacing the rack, a motor for driving the reduction gearing, the photoelectric cells, the amplifier, the motor, the reduction gearing, the rack and the tappet co-operating so as to change the circumference of the feed drum in accordance with the incorrect position of the marks in relation to the pencils of light, and to effect cutting of the paper web at the center of the pointed marks.

2,017,343. WEB RENEWING MECHANISM. Hobart N. Durham, Jackson Heights, N. Y., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application January 14, 1932, Serial No. 586,555. 9 Claims, (Cl. 242—58.)

6. Web renewing mechanism including in combination rotatable means for supporting a reserve web roll and an active web roll and a guide roller mounted at one side of the active web roll, the roller being positioned to cause a substantial turning movement to be exerted on the rotatable means in the direction of movement of the rotatable means as the active web roll approaches exhaustion.

2,017,619. FOLDING DEVICE FOR ROTARY PRINTING MACHINES. Hanns Fritz, Wurzburg, Germany, assignor to firm "Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft", Wurzburg, Germany. Application November 2, 1934, Serial No. 751,225. In Germany January 25, 1934. 5 Claims. (Cl. 270—77.)

1. In a folding apparatus a cutting cylinder, a folding cylinder working together with the cutting cylinder, sheet holding means on the folding cylinder, two folding rollers arranged underneath the folding cylinder, into and between which rollers the cut sheets are folded, means for releasing the sheets from the holding means including a shiftable cam and means for automatically shifting the cam in proportion to the speed of the machine to hasten or retard the release of the sheets from the sheet holding means.

2,018,558. SHEET FOLDER AND BINDER. William Roy Hotchkiss, St. Paul, Minn. Application September 12, 1932, Serial No. 632,660. 15 Claims. (Cl. 11—1.)

1. A sheet folder and binder for forming bank checks including, a carrier adapted to receive flat sheets, a folder at one end of the carrier, means for receiving the sheets from the folder, means for applying a strip of adhesive marginally to the folded sheet, and means for carrying the sheet with the adhesive thereon to a packing means which is adapted to pack the sheets together to form a book of checks, the leaves of which are marginally attached together.

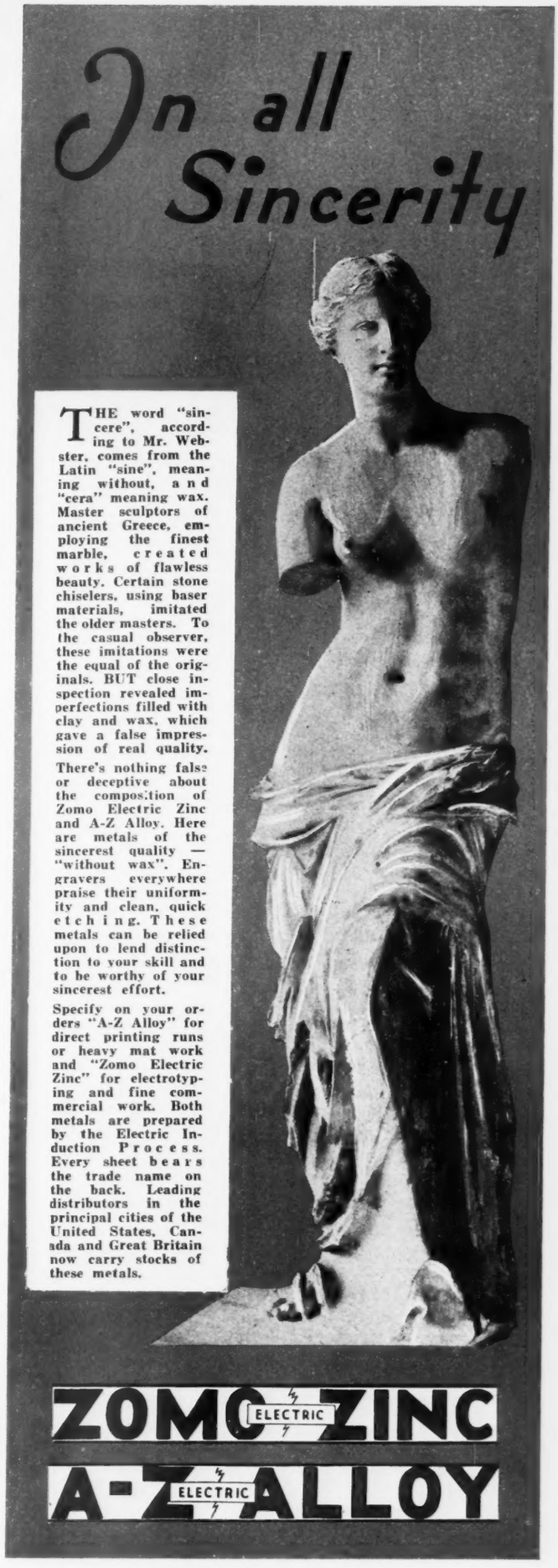
14. The method of making a book of printed sheets consisting in folding the sheets with the printed surface inside, applying a strip of adhesive adjacent the folded edge of the sheets while the sheet is maintained in loosely folded position, and pressing the folded sheets together only adjacent the fold while the sheets are retained in loosely folded position.

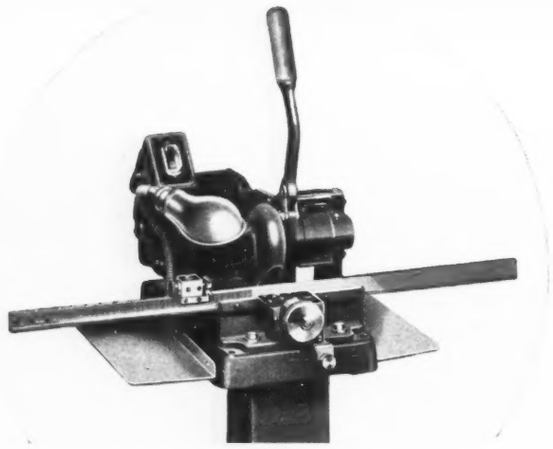
2,018,842. WEB RENEWING MECHANISM. Hobart N. Durham, Jackson Heights, N. Y., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application October 21, 1931, Serial No. 570,086. 26 Claims. (Cl. 242—58.)

4. Web renewing apparatus including in combination means for rotatably supporting a running web roll and a reserve web roll, means for driving the reserve web roll to bring it to the same peripheral speed as the running web roll and synchronizing means including a differential driven by the running web and reserve web roll.

2,018,855. FOLDING. Arnold Imshaug, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application November 23, 1932, Serial No. 643,989. 4 Claims. (Cl. 270—64.)

1. The method of preventing wrinkling in the folding of signatures which comprises forming a slit through a plurality of associated sheets and folding the sheets a plurality of times, the last fold being at right angles to another fold with the slit on the outside and along the line of the last fold and extending only to the folded edge of the product.


In all Sincerity
THE word "sincere", according to Mr. Webster, comes from the Latin "sine", meaning without, and "cera" meaning wax. Master sculptors of ancient Greece, employing the finest marble, created works of flawless beauty. Certain stone chiselers, using baser materials, imitated the older masters. To the casual observer, these imitations were the equal of the originals. BUT close inspection revealed imperfections filled with clay and wax, which gave a false impression of real quality.
There's nothing false or deceptive about the composition of Zomo Electric Zinc and A-Z Alloy. Here are metals of the sincerest quality — "without wax". Engravers everywhere praise their uniformity and clean, quick etching. These metals can be relied upon to lend distinction to your skill and to be worthy of your sincerest effort.
Specify on your orders "A-Z Alloy" for direct printing runs or heavy mat work and "Zomo Electric Zinc" for electrotyping and fine commercial work. Both metals are prepared by the Electric Induction Process. Every sheet bears the trade name on the back. Leading distributors in the principal cities of the United States, Canada and Great Britain now carry stocks of these metals.
ZOMO ELECTRIC ZINC
A-Z ELECTRIC ALLOY



For LAST MINUTE Ads

Whether they call for one or a hundred boxes, the ROUSE VERTICAL ROTARY MITERER will see you through. There is no other way nearly as fast.

The ROUSE VERTICAL ROTARY MITERER makes accurate right and left hand miters at a single operation, without preliminary cutting of strip to length. It is essential equipment in the modern, fast-moving publication or printing plant—priced reasonably.

Write for complete information.

H. B. ROUSE & CO.
2216 Ward St., Chicago

NEW
MASTERPIECE CORK
CREEPER BLANKETS
By the manufacturers of
PADD-O-CORK
and
STERE-O-CORK
MOLDING BLANKETS

Tested and Approved by Leading Stereotypers

For the Stereotype Department that is looking for a molding combination; using this creeper, a cork and molding board, they can look forward to results not obtainable with present combinations.

We refer to depth in solids, middle tones and type cups or letter bowl.

In other words, depth where needed without excess depth in open spaces.

SAMPLES ON REQUEST

Coyne & Paddock, Inc.
(Successors to Paddock Cork Company)
Manufacturers of fine cork products for over 70 years
48-15 32nd Place **Long Island City, N. Y.**
Phone: Stillwell 4-4663

2,019,658. FOLDING MECHANISM. Curtis S. Crafts, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application October 15, 1932, Serial No. 637,903. 33 Claims. (Cl. 270—6.)

1. In a folding and collecting mechanism for printing presses, the combination of a pair of folding cylinders, means for feeding a web to the cylinders, means for cutting sheets from the web, means for folding off products from the cylinders alternately, means for optionally collecting sheets for one of the cylinders and means for optionally silencing the collecting means, whereby products may be delivered from the cylinders alternately or from only one of the cylinders and products may be collected.

2,018,907. WEB HEATING DEVICE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application January 27, 1932, Serial No. 589,123. 6 Claims. (Cl. 154—42.)

1. The combination with a web splicing device, of an electrical heating means located in position to heat the inner layers of the web that is to be spliced to a new roll and means for thereafter bringing the web into contact with a new roll.

2,020,996. CUTTING MECHANISM. Curtis S. Crafts, Oak Park, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a corporation of Illinois. Application June 19, 1933, Serial No. 676,411. 18 Claims. (Cl. 164—67.)

1. A folding and cutting mechanism including in combination a pair of shear cutter cylinders, and a cylinder provided with sheet grippers to take a sheet as it is cut from a web by the shear cutters, a blade on each cutter cylinder, one of the blades traveling faster than web speed, and the gripper cylinder being provided with sheet-engaging surfaces which are spiral in cross-section to accelerate the cut sheet immediately after cutting to move the sheet away from the faster blade.

2,019,930. FOLDING MECHANISM FOR USE IN ROTARY PRINTING MACHINES. Cecil George Quick, Donald Arthur Ball, and William Arnold Whitehead, London, England, assignors to Irving Trust Company, permanent trustee for R. Hoe & Co., Inc., New York, N. Y., a corporation of New York. Application February 17, 1934, Serial No. 711,672. In Great Britain February 21, 1933. 11 Claims. (Cl. 270—38.)

1. A rotary member, folding-off means carried by the member, a die member carried by the rotary member, a second rotary member, a staple forming member carried by the second rotary member and arranged for co-operation with the die member, and a folding roller mounted for co-operation with the second rotary member to constitute therewith a pair of rotary folding members to which the folding-off means delivers a product to be folded.

2,020,124. MEANS OF FEEDING WEBS OF PAPER TO PRINTING PRESSES. Arthur Rosenthal, Grand Rapids, Mich., assignor to The Rose Patch & Label Company, Grand Rapids, Mich. Application May 21, 1932, Serial No. 612,678. 14 Claims. (Cl. 101—292.)

1. The combination of a printing press having an auxiliary web feeding device comprising a pair of feeding rolls delivering the web of paper into a slack loop and thence to the press, a main feeding device to carry the paper from the press comprising a frame with a pair of plates forming a table with a longitudinal open space in the center, a yielding guide blade suitably supported and extended forwardly and resting on the plate at one side of the table, a cut-off knife at the discharge end of the table, a pair of holding jaws comprising broad flat disk-like engaging contacts toward the receiving end of the table disposed within the longitudinal open space, trip cam means to actuate the same to hold the paper and to release it when paper is being advanced, a pair of feed jaws with broad flat disk-like engaging means adapted to traverse the longitudinal open space of the table, a slide at one side of the table to carry the feed jaws, means to actuate the feed jaws to cause them to engage the paper toward the receiving end of the table, means to advance the feed jaws along the longitudinal open space to push a sheet of paper beyond the cut-off knife, trip means to cause the feed jaws to release the paper at the end of the feed motion, and an endless conveyor means for receiving the cut-off sheets and conveying them to a drier.

2,020,118. PAPER REELING APPARATUS. William R. Kellett, Menasha, and Charles M. Pearson, Neenah, Wis., assignors to Paper Patents Company, Neenah, Wis., a corporation of Wisconsin. Application February 23, 1933, Serial No. 657,970. 13 Claims. (Cl. 242—65.)

1. In paper reeling apparatus, the combination of a drum, means rotatably supporting the drum, means for delivering a web of paper to the drum, a movable arm for delivering and temporarily supporting a spool in operative position relative to the drum for effecting winding of the web on the spool, a track for receiving the spool from the arm, pneumatic means for actuating the movable arm, and electric means for controlling the pneumatic arm actuating means.

2,020,939. FOLDER FOR SHEETS. Louis Frielinghaus, Dusseldorf, Germany, assignor to Schloemann Aktiengesellschaft, Dusseldorf, Germany, a corporation of Germany. Application October 25, 1934, Serial No. 749,885. In Germany November 1, 1933. 3 Claims. (Cl. 153—16.)

1. In a folder for sheets, the combination of a horizontal support for the sheet, separate means normally disposed below the support for folding the sheet in firstly flapping over the sheet placed on the support and secondly flattening the flapped over portion of the sheet down on the portion of the sheet resting on the support, and means for adjusting the overlying edges of the sheet when flapped over and before being flattened down, the last-named means engaging, and being adjustable along, the longitudinal edges of the sheet.

Printing Presses:

2,017,068. WEB ROLL SUPPORT. Frederick Lamatsch, Grantwood, N. J., assignor to Irving Trust Company, permanent trustee for R. Hoe & Co., Inc., New York, N. Y., a corporation of New York. Application June 6, 1932, Serial No. 615,603. 11 Claims. (Cl. 242—68.)

1. A frame, an outer sleeve slidably mounted therein, a shaft mounted in the frame and provided with a crank pin having rotating means adapted to quickly reciprocate the outer sleeve and its attachments, an inner sleeve slidably mounted in the outer sleeve, a rotatable web roll support cone on the inner sleeve, and a screw rotatably mounted on the outer sleeve and adapted to slowly and axially project and retract the inner sleeve.

2,017,139. FORM ROLL DRIVE. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application February 27, 1931, Serial No. 518,713. Renewed March 6, 1935. 7 Claims. (Cl. 101—350.)

1. In an inking mechanism, the combination with a form roller and means for driving it having a free driving surface capable of yielding circumferentially to permit the surface of the form roller to move at plate speed when the form roller is set with its axis at different distances from the axis of its driving element.

2,017,193. PRINTING PRESS. James A. Wray, Los Angeles, Calif. Application November 7, 1932, Serial No. 641,508. 6 Claims. (Cl. 101—186.)

1. In a printing press, a movable bed, a printing frame on the bed, paper supporting means, a connection for moving the printing frame with the bed into alinement with the paper supporting means, and driving means distinct from the connection for moving the alined printing frame past the paper supporting means, to aforementioned connection permitting movement of the printing frame relative to the bed during and in the direction of movement of the printing frame past the paper supporting means.

2,017,191. SHEET HANDLING MACHINE. Paul R. Whelan, St. Louis, Mo., assignor to David O. Royster, St. Louis, Mo. Application September 12, 1932, Serial No. 632,716. 27 Claims. (Cl. 271—3.)

1. Sheet-handling mechanism comprising sheet-inverting means, sheet-positioning means, and intermittently actuable means for feeding an inverted sheet to the sheet-positioning means.

2,017,257. APPARATUS FOR PREVENTING PRINT OFFSET. Thomas Fenn Pinder, Merion, Pa. Application January 2, 1932, Serial No. 584,471. 8 Claims. (Cl. 101—416.)

8. An ink treating apparatus comprising in combination, a heating drum around which a freshly printed web of paper is adapted to pass, a battery of ozonators arranged about a section of the drum, a heater positioned about another section of the drum, a hood encasing the major portion of the drum and mounted for movement with respect thereto, the hood enclosing and supporting the battery of ozonators and the heater, a cooling device disposed upon the outer face of the hood and made rigid therewith, means adjustably supporting the hood for moving the same, together with the battery ot ozonators, heater, and cooling device as a unit in relation to the surface of the drum, and a cooling unit mounted separately of the hood for subjecting the treated ink to a cooling treatment at a predetermined point in the travel of the paper over the periphery of the drum, and means associated with the cooling unit for displacing the same with respect to the drum independently of the hood.

2,017,545. INK FOUNTAIN FOR PRINTING PRESSES. Joseph E. McMullen, Milwaukee, Wis. Application August 31, 1934, Serial No. 742,278. 11 Claims. (Cl. 101—367.)

1. An ink fountain for printing presses comprising a casing having a longitudinal row of outlets, an agitator in the casing disposed adjacent to the inner surface of the outer wall thereof, means for reciprocating the agitator, including an operating rod connected with the agitator, a crosshead connected with the rod, a cross shaft operatively connected to the crosshead, a drive shaft operatively connected to the crosshead, and means for driving the drive shaft.

2,017,631. METHOD AND MEANS FOR PRINTING. Walter K. Miller, Chicago, Ill. Application April 28, 1931, Serial No. 533,472. 12 Claims. (Cl. 101—420.)

1. The process of preparing sheet cellulose material comprising printing upon a web of such material and drying the same by winding the material into a roll with an intermediate flexible sanded sheet, the projecting points of the sand contacting with and spacing the printed surface of the web, and permitting air to penetrate the convolutions of the roll.

2,017,932. INKING MECHANISM. Henry A. Wise Wood, New York, N. Y., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Original application October 28, 1926, Serial No. 144,877. Divided and this application November 7, 1929, Serial No. 405,505. 3 Claims. (Cl. 101—350.)

1. In an inking mechanism for a printing press, the combination with an ink drum, a fountain roll and a ductor roll, of means for intermittently swinging the ductor roll from the fountain roll to the ink drum and back again, comprising a cam on the ink fountain shaft and a roll therefor, means for controlling the duration of contact of the ductor roll with the fountain roll and ink drum by adjusting the roll, a shaft parallel with the shaft of the ink drum, arms thereon provided with bearings for the studs of the ductor roll, means adjustably fixed to the parallel shaft for supporting the roll and means for adjusting the arms circumferentially and holding them in adjusted position.

2,017,972. BEARING FOR PRINTING PRESS COUPLES. John A. Isbell, Plainfield, N. J., assignor to Wood Newspaper Machinery Corporation, New York, N. Y., a corporation of Virginia. Application March 20, 1933, Serial No. 661,819. 2 Claims. (Cl. 308—60.)

1. The combination of two shafts, eccentric collars for the shafts, bearings in the collars, a pair of arcuate shoes on the collars adjacent to each other but spaced apart, shaped to leave a converging passage extending through the space between them, a member located in the passage having a wedge portion extending from end to end of the passage, means whereby the wedge-shaped member can be moved in a direction towards its smaller end to force the shoes against the collars, means for turning the collars for adjustment, and yielding means always tending to force the wedge shaped member toward its smaller end, whereby vibration will tighten the wedge shaped member.

2,018,572. MOVABLE SPLIT BED FOR FLAT BED PRINTING PRESSES. John Ralph Reichenbach, Palmerton, Pa. Application December 21, 1934, Serial No. 758,638. 16 Claims. (Cl. 101—250.)

1. A printing press bed comprising a mobile supporting structure, a carrier slidably mounted in and extendible from one end of the structure and adapted to support a form locked thereupon, an ink plate forming element anchored to the other end of the structure, upstanding stops on the inner end of the carrier, the element having means for housing the stops when the carrier is in form supporting position, and means carried by the structure for latching the carrier therein.

2,018,602. APPARATUS FOR ADJUSTING AND STOPPING THE PRINTING IN AUTOMATIC PLATEN PRINTING PRESSES. Artur Buettner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany. Application May 22, 1933, Serial No. 672,313. In Germany June 4, 1932. 6 Claims. (Cl. 101—306.)

5. An apparatus for adjusting and stopping the printing in automatic platen printing presses having a toggle mechanism for actuating the platen, comprising, in combination with an oscillable platen carrier, a toggle lever attached at one end thereto, a bolt connected with the opposite end of the toggle lever and extending in the direction of the same; a worm connected with the bolt, a stationary, internally threaded sleeve engaged by the worm; an arm connected with the worm at the free face thereof, a projection extending forth from the arm in the direction to the toggle lever; a toothed sector supported on the stationary sleeve and having a recess engaged by the projection, another sector meshing with the first-mentioned sector; a lever connected with the other sector, the lever comprising a body portion and a handle portion which is turnable at the body portion at right angles to the direction of motion of the same; a threaded spindle supported in the frame of the machine near the handle end of the lever; means for turning the spindle; a nut located on the spindle and having a lateral recess, a graduated scale extending along the path of the nut, and a member extending forth from lever handle end into the recess.

Platemaking:

2,019,500. ARTICLE AND METHOD BY WHICH "BEN DAY" TONES ARE PHOTOGRAPHICALLY PRODUCED. Fayette E. Marsh and Charles H. Andersen, Los Angeles, Calif. Application May 8, 1934, Serial No. 724,534. 6 Claims. (Cl. 95—5.)

1. The method of producing "Ben Day" tones or shading effects which consists in providing a master drawing to be toned, placing upon the surface of the drawing various reflective coloring matters, having different reflective values, the reflective coloring matters being spaced where "Ben Day" tones are to subsequently appear on a photographic negative of the drawing, superposing upon the drawing a transparency containing a "Ben Day" pattern, and photographing the combination with the transparency nearest the camera.

2,019,905. STEREOTYPE METAL PUMP. William F. Huck, Richmond Hill, N. Y., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York; Irving Trust Company, permanent trustee. Application January 27, 1932, Serial No. 589,161. 6 Claims. (Cl. 22—2.)

5. In a device a spout member having a bearing surface, and a nozzle member having a bore fitted to rotate on the surface and oppositely disposed nozzles differing in configuration, whereby the nozzles may be selectively turned to operating position; the spout member being provided with an outlet positioned below the bearing surface.

2,020,479. PLANOGRAPHIC PRINTING ELEMENT. Benjamin L. Sites, Chicago, Ill., assignor to The Miehle Printing Press and Manufacturing Company, Chicago, Ill., a corporation of Illinois. Application October 16, 1930, Serial No. 489,031. 4 Claims. (Cl. 154—54.5.)

1. A flexible planographic printing element, comprising a base or backing of paper, a sheet of fabric united therewith, and a top sheet of rubber cemented thereon.

Everybody Is PLEASED

. . . stereotypers, press foremen, mechanical superintendents, business managers, editors, advertisers and readers . . . of newspapers which use

MORLEY MATS

They give deep, clean-cut, accurate impressions at low moulding pressure — prolonging the life of molding blankets, type and cuts.

Mill-conditioned to control shrink —scorch quickly — release easily without need of oil or powder.

We'd like to send you samples.

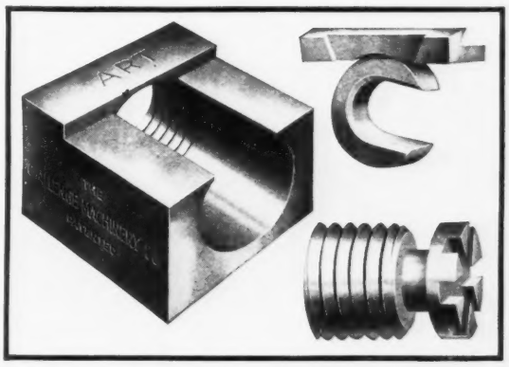
MORLEY BUTTON
Manufacturing Company
PORTSMOUTH, NEW HAMPSHIRE
New York Office: 46 East 11th Street

CHALLENGE • PLATE - MOUNTING EQUIPMENT

The Last Word in Efficiency

• When its a matter of saving time or insuring quality work, Challenge Sectional Blocks and Register Hooks are indispensable aids to maximum profits. They solve the toughest plate-mounting problems . . . save an amazing amount of time, trouble and expense . . . Adaptable to every sort of flat bed printing, Challenge Plate-Mounting Equipment facilitates make-up and make-ready on catalogs, book and magazine work, or any close-register job. Critical investigation invited. Write today for illustrated literature and prices.

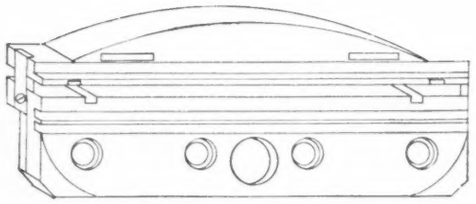
THE CHALLENGE MACHINERY COMPANY
GRAND HAVEN, MICHIGAN
CHICAGO, 17-19 E. Austin Ave. S-169 200 Hudson St., NEW YORK



Challenge Art Hook, above is ideal for color and register work. Operated by a small key. Plates can come together up to thickness of the key.

R·B·G

UNIVERSAL ADJUSTABLE MOLD
$50.00



Entirely American-Made and guaranteed one year against warping or distortion.

Sent on approval to rated establishments.

Other Molds: Advertising Figure—$50.00; Recessed 10-18 Pt.—$60.00; Headletters, all sizes to 36 pt.—$70.00. Also all sizes for the Intertype machine.

Our catalog shows the various Molds and Liners. *Send for a copy.*

Insist that your replacement parts be marked, "Made in U. S. A."

REID BROTHERS COMPANY, INC.
ESTABLISHED 1900
BEVERLY, MASSACHUSETTS

ETCH-RITE ZINC

FIT FOR A KING *etcher*

Alloyed to proper, precision hardness, you'll find Etch-Rite Zinc consistent, shipment after shipment. Its dependability will mean much to your etchers. Truly, Etch-Rite Zinc is fit to etchers and fit to be etched.

THE AMERICAN ZINC PRODUCTS CO.
GREENCASTLE, IND.

EMPIRE STATE BLDG.
NEW YORK CITY

NEW ORPHEUM BLDG.
LOS ANGELES

Distributors: G. C. Dom Supply Co., Cincinnati, Ohio. J. M. & L. A. Osborne Co., Cleveland, Ohio. Johnstone Electric Co., Chicago, Ill.

Equipment

(*Continued from Page 22*)

New Type-Wash Fluids

Two new type-wash fluids have been announced recently by the American Type Founders Sales Corporation. The "Amtyco" type wash is intended to meet the demands of those who require utmost economy, and the "ATF" wash, is said to be a non-inflammable fluid.

Both of these solvents have been developed to dry quickly without leaving an oily surface on type or rollers, according to the manufacturer. It is said they will remove hardened and dried inks from type, rollers and fountains, but to be harmless to rollers, type, halftones or the press.

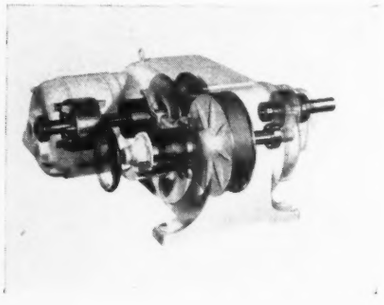
Fibre Duplex Rail Cap

Reid Bros. Co., Inc., is manufacturing a Fibre Duplex Rail Cap in addition to those made of steel for application to Linotype assembling elevators. It is claimed that fibre will wear before causing damage to the lower front lugs of matrices. In changing the rail cap material it has been the company's thought that it would be more economical to replace a fibre duplex rail cap than to replace matrices.

U. S. Varidrive Motor

A new development in variable speed drives for use in the printing industry is announced by the U. S. Electrical Motors, Inc. It is said that any speed from 1 r.p.m. to 10,000 r.p.m. may be obtained. Suitable motors are furnished for driving letterpress and offset presses, folders, stitchers, typecasting machines and other printing machinery.

The phantom view of the U. S. Varidrive Motor shows a new lever arm construction developed for the larger horsepower ratings, and to show how the formerly



Phantom View of U. S. Varidrive Motor

separate units consisting of a constant speed motor, a variable speed device, and a gear case have been built into one compact unit.

The phantom view also shows how the speed change is obtained by the micro-speed control which varies the effective driving diameter of the Varidiscs. These discs expand and contract for higher and lower speeds, transmitting power through the Varibelt to the take-off shaft. This new motor being self-contained can be conveniently direct connected to machinery. It places at the operator's command any variation of speed, so that the driven machine can be operated at its highest capacity at the will of the operator.

A new bulletin illustrating this new development in motor design may be procured from the U. S. Electrical Motors, Inc. 14 Thirty-fourth St., Brooklyn, N. Y., direct or in care of *Printing* EQUIPMENT *Engineer.*

Completes Twenty-Fifth Year With U. P. M.

A short while ago (on October 9 to be exact) Charles F. Sullivan completed his twenty-fifth year with the United Printing Machinery Company (now the U. P. M.-Kidder Press Company). It is said that in the past

Charles F. Sullivan (Sully to his friends) has just completed twenty-five years of service in printing field.

quarter century Mr. Sullivan has visited nearly every pressroom east of the Mississippi and most of Canada. It is regarded as something of an achievement by his employers that he has installed personally at least 75% of the 10,000 Chapman Neutralizers now combating static in thousands of printing plants.

GE Restores Vacations

Vacations with pay for hourly-paid employes of the General Electric Company, abolished several years ago, will be restored in 1936, according to Gerard Swope, president of the company, in an official statement announcing company policies governing wages, hours and working conditions for employes.

ATF News

Celebrating its occupancy of new enlarged quarters in the Duttenhofer Building at 6th and Sycamore Streets, the Cincinnati Branch of the American Type Founders held open house November 12 for over five hundred of the leading printers of Cincinnati and surrounding towns. President Thomas R. Jones and General Sales Manager H. W. Alexander, together with twelve other executives of the Company were on hand to entertain the visitors.

E. C. Raasch, for the past two years local manager, Milwaukee Branch of American Type Founders Sales Corporation, has been appointed manager in full charge. Clinton F. Hicks, Chicago manager, has for several years supervised this Branch with Mr. Raasch's local contact.

Sales of American Type Founders are running far ahead of both 1933 and 1934. For the ten months calendar year ending October 30th this year, net sales, including foreign, were 65% ahead of same period 1933. October was 71% ahead of two years ago. For ten months this year over same period last year, sales show 26% increase.

This good record is from increased sales of Kelly presses, type and miscellaneous merchandise.

J. B. Heilbronn, of Manila, P. I., received a "rush" order within eight days after it left the plant of American Type Founders, Elizabeth, N. J. Ordinarily, such shipments require about thirty-three days in transit. The type went by airmail from Elizabeth to San Francisco, and from there was transferred to the express compartment of the Pan American "China Clipper" for the rest of the 8000-mile journey.

A NEW BOOK

BY

Joe Goggin

A story of the History, Equipment, Materials and Manipulations of Stereotyping, including a glossary and encyclopedia of terms, agents and practices told in 80,000 words in the

Manual of Stereotyping

$5.00 the copy, remittance may accompany order, or pay Postman on delivery, make checks and money orders payable to

JOSEPH GOGGIN

1751 North Le Claire Avenue - CHICAGO, ILL.

Use FITZ-LIVECORK PRESS BLANKETS

Write for Samples and Prices

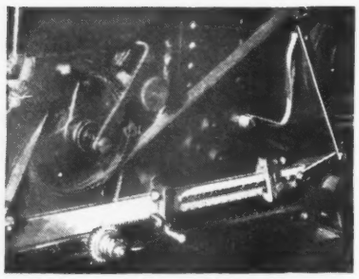
FITZPATRICK FELT MANUFACTURING CO.

1971 EAST 79th STREET ∴ ∴ CLEVELAND, OHIO

HARRIS ASSEMBLER SLIDE CONTROL FOR LINOTYPES

•

TIME HAS PROVEN



Showing installation on Linotype. Slide in position ready to assemble line.

That This Control Does Eliminate—

Transpositions
Jumping and jiggling of assembler slide
Adjusting of brakes
Replacing of brake shoes and assembler slides
And all the other tantalizing and irritating things caused by inadequate control of assembler slide.

Simple, efficient, economical—

You will be impressed by the simplicity of this control. All parts are well made and finished. They fit properly and are very easy to install. Adjustments are few and not intricate. When once set further attention is unnecessary. Maintenance is cut to almost nothing.

Satisfaction Guaranteed—

For a limited time we will ship these controls on 15 days' approval. After you see and use them you will agree with us that they are

High in Value—Low in Price

Take advantage of this offer NOW.

Made by
Printers' Machinery and Supply Company
723 First St.
Detroit, Mich.

Announcing . . . . .

THE VULCAN OIL-PROOF UNDERPACKING BLANKET

A worthy addition to the highly successful Vulcan line of cylinder packings.

FEATURES

1 Oil-proof. Unaffected by the oils in inks or by lubricating oils. **2** Resilient. This blanket has all the physical qualities of a rubber underpacking—resilience, firmness, pliability, and minimum stretch—yet it is made of oil-proof materials. **3** Will not creep, blister, or swell

This new oil-proof underpacking is suitable for use with Vulcan felt and non-felt blankets, E. D. blankets, and draw sheets. It is the result of several years of research and development work in the Vulcan Laboratory. Write for particulars.

VULCAN PROOFING COMPANY

FIRST AVE. AND FIFTY-EIGHTH ST., BROOKLYN, N. Y.

Pacific Coast: Ralph Leber Co., Inc., 426 Polson Building, Seattle, Wash.
Southern Representative: Hi-Speed Roller Company, New Orleans, La.

Rubber Plates

(Continued from Page 8)

oil inks having a medium body. Inks with a tacky body will cause a suction which is not easy on the life of a rubber plate. To provide for all classes of multi-color printing from both hand-engraved and molded rubber plates, new types of dull-set ink are now made, respectively, in opaque, semi-transparent and transparent colors and tints. These new inks are made with a special oil vehicle and concentrated colors, ground in an ink mill, and in the finished printing they present the same brilliant, soft, velvety appearance as the well-known water-color inks. The larger printing ink manufacturing companies employ expert chemists who are ready to co-operate with printers in supplying any desired type, color and body of ink, suitable for printing from rubber plates, on any kind of paper stock or special material.

Molded Rubber Plates

Molded rubber plates have been developed for long runs of various lines of printing requiring a number of duplicate plates, also for many different black and color forms where the design is too fine to engrave by hand. The character of the original form or engraving to be reproduced is exceedingly important. Halftones of 120-line screen or finer are not, as yet, encouraged. Good duplicate molded rubber plates can be reproduced from 65, 80 and 100-line screen, deep-etched halftones, of copper or zinc. No matter what the size of the screen may be, the original halftone should be etched considerably deeper than for regular printing or electrotyping purposes. The photo-engraver should be instructed that dots or lines in an original engraving cannot be re-etched or undercut in the molded rubber plate duplicate.

Among the comparatively new lines of work now being printed in black ink from molded rubber plates, are letterhead designs, office and factory forms and various kinds of forms with cross-rules. Type-and-rule forms are usually reproduced by first having a wax-engraved and type-stamped mold made by an electrotyper, then having a regular electrotype made from the wax mold. From the electrotype another mold is made for producing the duplicate rubber plate.

• *Technical Literature*

Readers of *Printing* Equipment *Engineer* who are interested, may secure any of the Books, Catalogs or Bulletins listed below by checking the literature desired in the square opposite the title. Mark carefully only that literature which you wish to receive. Fill out the coupon and send it to us. The literature will be forwarded gratis except where noted.

☐ *Brush Catalog*—Consists of 64 illustrated pages descriptive of glue and paste brushes, brushes for inking, stenciling, dusting and cleaning brushes used in the printing plant.

☐ *Francke Flexible Couplings*—Attractive new catalog describes and illustrates misalignment and flexible couplings for direct connected shafts. In addition to describing important changes in design and materials, complete tables of sizes for the various types, full directions for size selection and coupling service factors are given. Copies of new catalog and price list available to interested executives.

☐ *New No. 3 C. & G. Cabinet Model Saw-Trimmer*—Contains specifications and illustrates functions of new model composing room tool. Detailed views show different operations of mechanism.

☐ *Line-Composing Machine Parts and Supplies Bulletin*—Spacebands, molds, liners and magazines for Linotypes illustrated.

☐ *How SKF Bearings Can Replace Plain Bearings on Fans and Blowers*—Eight-page bulletin. Types of fans, shaft diameters and other designations for 86 actual change-over jobs are given together with other technical information necessary.

☐ *Tachometer, Totalizer, Automatic Oiling*—Information about any or all of these devices on Simplex printing presses may be obtained.

☐ *Intertype Presents Low-Slug Quadding*—Sixteen-page booklet describing new method for casting low-quadded areas on slugs which may be used either to prevent smudging on the press or for the purpose of mounting cuts directly on the slugs.

☐ *Loose Leaf Pocket-size Catalog*—The Ohio Carbon Co. has issued a new loose-leaf pocket-size catalog containing data on those types of carbon brushes in most general use, and which are most desirable to carry in stock for replacements on power-driven small and medium sized equipment.

☐ *Signode Steel Strapping*—Illustrated bulletin on fixtures and use of strapping for the shipping room.

☐ *Neuland and Orplid*—Eight-page booklet demonstrating sizes and use of two type faces.

☐ *Graphic Arts Motors*—Illustrated folder describes motors manufactured for driving printing machinery.

☐ *Washington's Farewell Address*—Booklet set in Monotype Baskerville. Several of the pages are presented for comparative purposes by setting a page in leaded type and the page opposite in solid type in the same point size. Washington's complete address is contained in the booklet, a copy of which will be sent to any mechanical executive.

☐ *Selected Examples Showing Work of Bruce Rogers*—Booklet consists of eight pages printed on cream laid stock. Each specimen distinctively different. Photographically reproduced about half size and printed by offset.

☐ *Gutenberg's Press Isn't Worn Out*—Large illustrated folder describes automatic cylinder press. Examples of tribute extorted by Old Man Obsolescence on printed jobs are presented also.

☐ *Memphis With Italic*—Twenty-page booklet with complete showings of both Memphis and the Italic in various sizes for Linotype composition.

Printing EQUIPMENT *Engineer*,
1276 West Third St., Cleveland, Ohio.

Gentlemen: Please send the literature checked above without obligation.

Name of Company.....

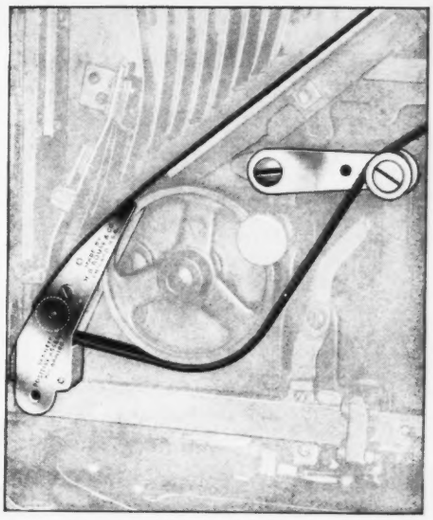
Attention of.....

Position..... Dept.....

Firm St. Address.....

City..... State.....

The Sennett Positive Assembler



20%

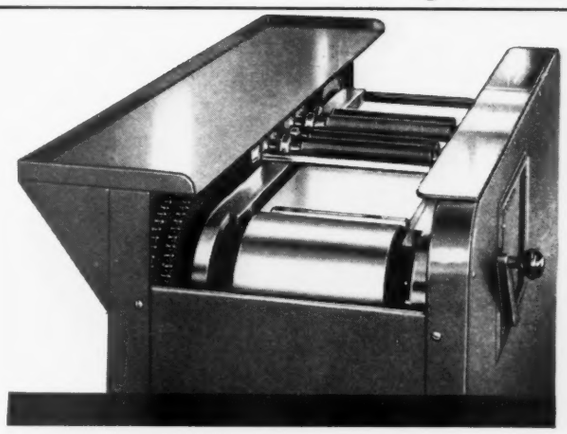
Increased Production

The Sennett Positive Assembler speeds up operation by eliminating jumping mats and consequent transpositions. It helps operator set clean proofs whatever his speed. It is essential to accurate, quick production.

Thousands are in operation in leading printing and publishing plants throughout the world. It is a definite profit-maker.

The Sennett Assembler can be installed in a few minutes without any machine work. The improved Assembler complete with Single Drive Belt, including Star Wheel, Idler and new Matrix Delivery Belt is priced at $12.00. Satisfaction or your money back. Order direct from your Rouse dealer.

H. B. ROUSE & COMPANY
2216 Ward Street Chicago, Illinois



No. 22 Vandercook Proof Press Shortens the Time to Make-Up Bank

Good galley proofs facilitate accurate and fast reading.

The No. 22 Vandercook Electric Proof Press prints **good** proofs of straight matter and ads in galleys up to 10" x 26"— 40 per minute.

The No. 22 eliminates the proving delay so hazardous where time is valuable. If you do not have details of operation and recent prices on the No. 22 Vandercook Electric Proof Press, write for them now.

Vandercook & Sons, Inc.
908 North Kilpatrick Ave., Chicago, Illinois

HAMILTON V. NEILL, FOREMAN OF DETROIT FREE PRESS COMPOSING ROOM, SAYS "LUDWICK METAL FEEDERS HAVE ELIMINATED BURNING OUT OF POT ELEMENTS—GIVE BETTER SLUGS AND MORE PRODUCTION. THEY PERFORM PERFECTLY, AND WE CAN RECOMMEND THEM TO ANY PLANT."

(42 are in use at this plant)

FOR
LINOTYPE
INTERTYPE
MONOTYPE
LUDLOW
ELROD
POTS

ONLY
$40.00
with
Pig
Mold

USE—TRADE ★ MARK—PARTS

LINOTYPE PARTS CORPORATION

AGENCIES;

NEW YORK 203 Lafayette St. | CHICAGO LOS ANGELES | KANSAS CITY, MO. 314 West 10th Street

Pyrometers—
Portable and Wall Type for stereotype or remelting pots, linotype, intertype and monotype metal temperatures.
Write for Information
Illinois Testing Laboratories, Inc.
139 W. Austin Ave. Chicago, Ill.

GENERAL REPAIR OF LINOTYPE—INTERTYPE MOLDS
ANY KIND—ANY SIZE
Since 1912
WILLIAM REID & CO., 537 South LaSalle St., Chicago, Ill.

S. KRASILOVSKY & BRO., INC.
MOVERS OF PRINTING PLANTS AND MACHINERY
216 CENTRE STREET • NEW YORK, N. Y.
(See indexes in Reference Number, Printing Equipment Engineer)

McMurtrie Speaks

At a meeting of the Guild Typographica, Chicago, held on the evening of November 22, Douglas C. McMurtrie, director of typography of the Ludlow Typograph Company, spoke on "Present and Future Typography." L. H. Klein, president of the Guild, presided.

Mr. McMurtrie outlined briefly the principles of "modern typography." He urged the importance of fitness to purpose in the planningof printing, of putting a "tone of voice" into typography, of the greater vitality of non-centered layouts, and a new and higher regard than ever before for ease of reading.

Consult This Index

Advertisers

For December, 1935

	Page
Alemite Corporation (Div. Stewart Warner Corporation) *Agency:* Blackett-Sample-Hummert, Inc., Chicago, Ill.	Inside Back Cover
American Publishers Supply	23
American Type Founders Sales Corporation *Agency:* G. M. Basford Company, New York, N. Y.	18-A
American Zinc Products Company	32
Atlantic Zinc Works	29
Booth, E. A., Rubber Company	21
Burgess Cellulose Company *Agency:* Fred A. Robbins, Inc., Chicago, Ill.	25
Certified Dry Mat Corporation *Agency:* The H. P. Boynton Advertising Agency, Cleveland, Ohio.	22
Challenge Machinery Company *Agency:* Simmonds & Simmonds, Inc., Chicago, Ill.	31
Coyne and Paddock, Inc.	30
Edes Manufacturing Company, The *Agency:* The Callaway Associates, Inc., Boston, Mass.	20
Equipment Acceptance Corporation (Div. Commercial Investment Trust Corporation)	11
Fitzpatrick Felt Manufacturing Company	33
Flexideal Dry Mat Company *Agency:* Fred Glen Small, Inc., New York, N. Y.	16
Goggin, Joe	33
Goodyear Tire & Rubber Company, The *Agency:* Arthur Kudner, Inc., New York, N. Y.	4
Goss Printing Press Company, The *Agency:* Simmonds & Simmonds, Inc., Chicago, Ill.	2
Illinois Testing Laboratories, Inc.	36
Imperial Type Metal Company *Agency:* Will, Inc., Cleveland, Ohio.	19
Intertype Corporation *Agency:* Fred Glen Small, Inc., New York, N. Y.	Outside Back Cover
Kidder Press Company, U.P.M., Inc. *Agency:* James Thomas Chirurg Company, Boston, Mass.	28
Krasilovsky, S., & Brother, Inc.	36
Lake Erie Stereotype Equipment Company	24
Linotype Parts Corporation	36
Ludlow Typograph Company *Agency:* Schwimmer & Scott, Chicago, Ill.	26
Matrix Contrast Corporation *Agency:* Fred Glen Small, Inc., New York, N. Y.	6
Mergenthaler Linotype Company *Agency:* Kenyon & Eckhardt, Inc., New York, N. Y.	9
Morley Button Manufacturing Company *Agency:* Chambers & Wiswell, Inc., Boston, Mass.	31
Morrill, George H., Company (Div. General Printing Ink Corporation)	18
Niles & Nelson, Inc. (Goodrich, The B. F., Rubber Company) *Agency:* Griswold-Eshleman Company, Cleveland, Ohio.	15
Ostrander-Seymour Company	13
Printers' Machinery & Supply Company	34
Reid Brothers Company, Inc.	32
Reid, William, & Company	36
Rolled Plate Metal Company	29
Rouse, H. B., & Company *Agency:* Clifton Kirkpatrick, Chicago, Ill.	30-35
Stahl Newspaper Supply Company, Inc	3-17
UPM-Kidder Press Company *Agency:* James Thomas Chirurg Company, Boston, Mass.	28
Vandercook & Sons, Inc. *Agency:* Clifton Kirkpatrick, Chicago, Ill.	35
Vulcan Proofing Company *Agency:* Fred Glen Small, Inc., New York, N. Y.	34
Wood Flong Corporation *Agency:* Meredith & Co., Inc., Troy, N. Y.	27

Printing EQUIPMENT *Engineer*

ANNUAL INDEX *for the Year* 1935

A

Acker, Wm. J.: Air Needed by Printer to Control Output, 7, Apr.
A.C. vs. D.C. Drives, H. F. Blankenbiller, 13, Mar.
A.C. vs. D.C. Drives for Newspaper Printing Presses, H. F. Blankenbiller, 96, June.
Advantages of Plate Mounting Systems, Robt. F. Salade, 8, July.
Air Conditioning: Air Needed by Printer to Control Output, Wm. J. Acker, 7, Apr.
Comfort Induces Efficiency at all Seasons in Newspaper Plant, 123, Nov.
Analysis of Graph for Second Six Months of Operation Under Cost System, B. T. Juergens, 28, Oct.
Aniline Inks, Recent Developments, Alfred McNeil, 130, Nov.
A.N.P.A.: Attendance Register of Detroit Conference, 23, July.
Booths In Variety at Mechanical Conference, Staff Writer, 34, July.
Detroit Mechanical Conference Report, 10, July.
Exhibit Will Show Mechanical and Technical Details, 18, May.
Mechanical Committee Personnel, 150, Nov.
Mechanical Conference in Detroit, 18, Apr.
Mechanical Program Marked by Variety of Subjects, 21, June.
Service Given by Mechanical Department Pays Big Dividends, 66, June.
Waste of Newsprint Greatly Reduced, Staff Writer, 22, May.
Appraisal of Foreman's Major Attributes, LeRoy Church, 56, June.
Automatic Lubrication of Presses, S. A. Huffman, M. E., 16, Apr.
Automatic Proof Conveyor, E. G. Myers, 10, Jan.

B

Bajan, Julius: Modernization Brings New Life and New Customers to Printing Plant, 7, May.
Baumrucker, Wm., Jr., in Collaboration with Wm. G. Dodge, Problem of Poor Appearance of First Impression Newspaper Printing, 23, Aug.
Beautiful New Building for Los Angeles *Times*, Jas. E. McIntyre, 25, Sept.
Bennet, James E.: Sales of New Equipment Only Governed by Trade-In Plan, 28, June.
Berckmans, Bruce: News, Inks, Mileage and "Color" Discussed, 20, Mar.
Bigsby, C. M.: Reverse Blue Print for Filling Mortises, 98, June.
Shock-Proof Foundation for Newspaper Printing Press, 62, June.
Binding Books By the "Neo-Nevett" Tape-Slot System, Ira D. Pilliard, 41, Nov.
Blankenbiller, H. F.: A.C. vs. D.C. Drives, 13, Mar.
A.C. vs. D.C. Drives for Newspaper Printing Presses, 96, June.
Blankets for Newspaper Printing Should Have Firmness and Resilience, J. C. Dunn, 60, Nov.
Blumberg, Raoul: New Plant for Washington News, 12, Apr.
Bolton, Geo. R.: Double Pages with Single-Page Equipment, 17, Mar.
Books Received: Type Problems Answered, 8, Apr.
Book Printing From Stereo Plates, 145, Nov.
Copifit, 34, Sept.
"Digested" Specimen Book, 145, Nov.
Editor's Handbook, 24, May.
LSP Year Book, 36, Sept.
Manual of Stereotyping, Joseph Goggin, 8, Aug.
Practice of Collotype, 35, Sept.
Three Monographs on Color, 33, Sept.
Booths In Variety at Mechanical Conference, Staff Writer, 34, July.
Brewer, F. O.: Electric Immersion Units to Melt Hard Foundry Type Metal, 43, Nov.
British Printing Industry Research Association: Static Electricity As It Affects Paper, with Comments by Wm. C. Glass, 37, June.
Brushes, If Watched, Will Save Trouble, L. L. Stoffel, 93, June.
Burke, Jack: Stoker Used to Heat 2-Ton Stereo Pot, 34, June.
Buy the Proper Inks Suitable for Job to be Printed, W. W. Hitchner, 64, June.

C

Calkins, Russell, Gauge for Testing Worn Condition of Line Composing Matrices, 14, Sept.
Carty, Alton B.: Function of Register Rack on Flat-Bed Printing Presses, 52, Nov.
Replies to H. W. Hacker on Register Problem, 26, Aug.
Replies to Mr. Oppenheimer, 26, Oct.
Variation in Register at Variable Press Speeds, 74, June.
Church, LeRoy: Appraisal of Foreman's Major Attributes, 56, June.
Cline, A. J.: Replies to "A.C. vs. D.C." Article, 10, May.
Cobb, John E.: Craftsmen's Convention Report, 11, Sept.
Color Printing In Newspapers Dependent Upon Sympathetic Technique, H. L. Foster, 23, June.
Color Printing in Newspapers Must be Simple and Attractive, Harold M. Tillinghast, 45, Nov.
Comfort Induces Efficiency at All Seasons in Newspaper Plant, W. H. Moler, 123, Nov.
Complete Text of Machinery Value Determination Method, 28, June.
Composing Machines: Copy Control in Composing Room, 124, Nov.
"Digested" Specimen Book, 145, Nov.
Display Linotypes Have New Features, Staff Writer, 26, June.
Electric Immersion Units Used to Melt Hard Foundry Type Metal, 43, Nov.
Gauge for Testing Worn Condition of Line Composing Matrices, 14, Sept.
Hard Metal Used to Cast Slugs on Intertypes, 34, June.
Matrix Tooth List and Lug Chart, 69, June.
Pin Improves Distributor Clutch Action, 51, Nov.
Pyrometers and Uses in Printing Industry, 12, May.
Slide Block Friction, 24, Feb.
The Leader Problem, 16, Sept.
To Develop Speed in Small Cap Composition, 52, Nov.
Trimmer Applied to Ludlow for Cutting Waste from Slugs, 117, Nov.
When to Discard Matrices, 33, Jan.
Worn Matrix Teeth, 26, Feb.
Composing Room Cost System: Analysis of Graph for Second Six Months of Operation Under Cost System, B. T. Juergens, 28, Oct.
Control of Stock a Requirement for Efficient Plant Management, Staff Writer, 10, Oct.
Control Variables, Leon A. Link, 18, Mar.
Copifit, 34, Sept.
Copy Control in Composing Room, J. M. Letham, 124, Nov.
Cost System for Composing Room: Production Chart Kept by Newspaper Composing Room Executive Shows Output in Graphic Manner, 30, July.
Cost in Composing Room is Powerful Fulcrum, Charles H. Stout, 79, June.
Craftsmen: Convention Program called a Post-Graduate Course. Staff Writer, 7, Aug.
Craftsmen's Convention, John E. Cobb, 11, Sept.
Cut Lifter, Mort Moeder, 8. Jan.
Cuts Made in One-Man Plant, O. W. McKennes, 35, June.
Cylinder Press Slurs, Robt. F. Salade, 7, Jan.

D

Deep-Etch and "Indestructible" Press Plate, Adam Henry Reiser, 11, Mar.
Dickerson, Robt. W., Sense Must be Used in Laying Out Plant for Efficient Operation, 66, June.
Diefenbach, W. T.: Ink Clouding Caused by Static Electricity, 12, Aug.
Display Linotypes Have New Features, Staff Writer, 26, June.
Disposing of Waste Products, 145, Nov.
Dodge, Wm. G., in Collaboration with Wm. Baumrucker, Jr., Problem of Poor Appearance of First Impression Newspaper Printing, 23, Aug.
Double-Pages with Single-Page Equipment, Geo. R. Bolton, 17, Mar.
Duffy Memorial, Staff Writer, 30, June.
Dunkak, E. B.: Hidden Flame, Some Technical Aspects with Respect to Stereo Metal Melting, 120, Nov.
Dunn, J. C.: Blankets for Newspaper Printing Should Have Firmness and Resilience, 60, Nov.
Duotone Plates for Special Color Reproduction, Robt. F. Salade, 19, Apr.

E

Editorial: Forward! 9, Apr.
The Sledge, 39, Nov.
Electric Eye Regulates Stereotype Metal Temperature at Buffalo *News*, 18, Dec.
Electric Eye, Wirephoto Uses, Associated Press Staff, 28, Mar.
Electric Immersion Units Used to Melt Hard Foundry Type Metal, F. O. Brewer, 43, Nov.
Engraving: Cuts Made in One-Man Plant, 35, June.
Ethylene Dichloride, 42, Nov.
Four-Color Plates, 7, Feb.
Highlight Halftones, 126, Nov.
Order Form Makes Specifications for Printing Plates Semi-Automatic, Staff Writer 49, Nov.
Roll-Up Process for Etching Halftones, 49, June.
Equipment Association Will Carry On With Three Major Objectives, Staff Writer, 7, July.

F

Financial Relief, Through New Plan Printer May Rehabilitate and Modernize, 7, Oct.
Fogging of Nickel Articles, Printing Industry Research Association, 9, Jan.
Foster, H. L.: Color Printing In Newspapers Dependent Upon Sympathetic Technique, 23, June.
Fountain Cleaning Expedited by Means of Mechanical Drive, 140, Nov.
Four-Color Plates, Mac Sinclair, 7, Feb.
Freelander, A. L.: Rollers From Synthetic Resins, 20, Jan.
Function of Register Rack on Flat-Bed Printing Presses, 52, Nov.

G

Gauge For Testing Worn Condition of Line Composing Matrices, Russell Calkins, 14, Sept.
Glass, Wm. C.: Static Electricity As It Affects Paper, 37, June.
Going To Press On Time a Problem in Many Plants, Staff Writer, 31, June.
Gravure With Paper Blends to Secure Effect, Robt. F. Salade, 58, June.

H

Hacker, H. W.: Letters to the Editor, Problem of Register, 26, Aug.
Handbook for Editors, 24, May.
Hanson, Milton E.: Stroboscope and Its Usefulness, 70, June.
Hard Metal Used to Cast Slugs on Intertypes, Staff Writer, 34, June.
Hidden Flame, Some Technical Aspects with Respect to Stereo Metal Melting, E. B. Dunkak, 120, Nov.
Highlight Halftones, J. S. Mertle, 126, Nov.
Hitchner, W. W.: Buy the Proper Inks Suitable for Job to be Printed, 64, June.
Hogan, John B.: Notching Column Rules, 33, Apr.
How Do You Like Our Reference Number? 12, Dec,
Huffman, S. A.: Automatic Lubrication of Presses, 16. Apr.

I

Improvement in Timken Bearings, 32, Sept.
Index, Manufacturers', for 1936, 65, Nov.
Products, for 1936, 91, Nov.
Inks: Buy the Proper Inks Suitable for Job to be Printed, W. W. Hitchner, 64, June.
Clouding Caused by Static Electricity, 12, Aug.
Duotone Plates for Special Color Reproduction, 19, Apr.
Printing Ink Research Bureau Coverage Scale, 51, Nov.
Recent Developments in Aniline Inks, 130, Nov.
Stacker Used to Dump Ink Barrels, 32, June.

J

Juergens, B. T.: Analysis of Graph for Second Six Months of Operation Under Cost System, 28, Oct.
Production Chart Kept by Newspaper Composing Room Executive Shows Output In Graphic Manner, B. T. Juergens, 30, July.

L

Leader Problem, The, 16, Sept.
Left-Hand Perforating, L. Jas. Whiteman, 8, Jan.
Letham, J. M.: Copy Control in Composing Room, 124, Nov.
Trimmer Applied to Ludlow for Cutting Waste From Slugs, 117, Nov.
Letters to the Editor: Alton B. Carty Replies to Mr. Oppenheimer, 26, Oct.
Has Its Uses, After All, Impression Pete, 23, Apr.
In Relation to Register at Varying Speeds, R. O. Vandercook, 26, Oct.
Problem of Register, H. W. Hacker, 26, Aug.
Saving the Newspaper, 16, Feb.
Lewis, H. I.: Type Founding Process Under Rigid Control, 9, Dec.
Link, Leon A.: Control Variables, 18, Mar.
LSP Year Book, 36, Sept.
Lubrication of Printing Presses Accomplished Automatically, Staff Writer, 13, Aug.

M

Mahoney, Joseph: New England Executives Meet, 128, Nov.
Makeready of Electros Eliminated in Pressroom by Use of Hengst System, Ira D. Pilliard, 16, Sept.
Manual of Stereotyping, Joseph Goggin, 8. Aug.
Manufacturers' Index, for 1936, 65, Nov.

Matrices, When to Discard, 33, Jan.
Matrix Tooth List and Lug Chart, 69, June.
McIndoe R. J.: Offset Banished from Chicago Pressroom, 52, June.
McIntyre, Jas. E.: Beautiful New Building for Los Angeles *Times*, 25, Sept.
McKennes, O. W.: Cuts Made in One-Man Plant, 35, June.
McNeil, Alfred: Recent Developments in Aniline Inks, 130, Nov.
Mechanical Committee Personnel, A.N.P.A., 150, Nov.
Meeting of Graphic Arts Research Bureau, Staff Writer, 32, June.
Mertle, J. S.: Highlight Halftones, 126, Nov.
Metal: Tin—How Much Do You Lose In Dross? 60, June.
Waste In Remelting Pot, 33, June.
Modernization Brings New Life and New Customers to Printing Plant, Julius Bajan, 7, May.
Moeder, Mort: Cut Lifter, 8, Jan.
Moler, W. H.: Comfort Induces Efficiency at all Seasons in Newspaper Plant, 123, Nov.
Myers, E. G.: Automatic Proof Conveyor, 10, Jan.

N

National Printing Equipment Assn.: Annual Meeting, 27, Oct.
Objectives are Constructive, 41, Nov.
Problem of Surplus Used Machinery, 40, Nov.
Will Carry on With Major Objectives, 7, July.
New Buildings for G.P.O., 17, Sept.
New England Executives Meet, Joseph Mahoney, 128, Nov.
New Equipment: 12, Jan.; 33, Feb.; 16, Mar.; 24, Apr.; 16 May; 16, July; 10, Aug.; 18, Sept.; 8, Oct.; 46, Nov.; 10, Dec.
New Plant for Washington *News*, Raoul Blumberg, 12, Apr.
News Inks, Mileage and "Color" Discussed, 20, Mar.
Newsprint Waste Greatly Reduced, Staff Writer, 22, May.
Notching Column Rules, John B. Hogan, 33, Apr.

O

Objectives of National Printing Equipment Association are Constructive, 41, Nov.
Offset Banished from Chicago Pressroom, R. J. McIndoe, 52, June.
Offset-Lithography: Cleanliness of Supreme Importance Throughout Process, 77, June.
Deep-Etch and "Indestructible" Press Plate, Adam Henry Reiser, 11, Mar.
Sands for Graining Zinc Offset Plates Subject of Microscopic Study, 16, Aug.
When and Why, Offset? 9, Oct.
Offset of First Impression Printing Discussed by Executive, John J. Shea, 15, Sept.
Oppenheimer, Sam'l, Register on Flat-Bed Cylinders a Problem of Inertia and Momentum, 8, Sept.
Order Form Makes Specifications for Printing Plates Semi-Automatic, 49, Nov.
Ortleb Appointed Deputy Public Printer, 61, Nov.

P

Patents: 30, Jan.; 28, Feb.; 34, Mar.; 30, Apr.; 30, May; 82, June; 24, July; 30, Aug.; 38, Sept.; 30, Oct.; 132, Nov.; 28, Dec.
Photo-Lith, Cleanliness of Supreme Importance Throughout Process, Frank O. Sullivan, 77, June.
Pilliard, Ira D.: Binding Books by "Neo-Nevett" Tape-Slot, System, 41, Nov.
Makeready of Electros Eliminated in Pressroom by Use of Hengst System, 16, Sept.
Pin Improves Distributor Clutch Action, 51, Nov.
Plane-O-Plate Uses High-Speed Cutter, 22, Oct.
Plate Mounting Systems, Advantages Of, Robtert F. Salade, 8, July.
Porter, H. A.: When and Why, Offset? 9, Oct.
Potato Graters Vital to Newspaper Color Printing, 9, Feb.
Power Demand Factor Automatically Limited, Francis A. Westbrook, 25, June.
Practice of Collotype, 35, Sept.
Presses: A.C. vs. D.C. Drives, H. F. Blankenbiller, 13, Mar.
Air Needed by Printer to Control Output, 7, Apr.
Automatic Lubrication, 16, Apr.
Blankets for Newspaper Printing Should Have Firmness and Resilience, 60, Nov.
Color Printing in Newspapers Dependent Upon Sympathetic Technique, 23, June.
Cylinder Press Slugs, 7, Jan.
Color Printing In Newspapers Must be Simple and Attractive, Harold M. Tillinghast, 45, Nov.
Fountain Cleaning Expedited by Means of Mechanical Drive, 140, Nov.
Function of Register Rack on Flat-Bed Printing Presses, 52, Nov.
Gravure With Paper Blends to Secure Effect, 58, June.
Ink Clouding Caused by Static Electricity, 12, Aug.
Lubrication of Presses Accomplished Automatically, 13, Aug.
Makeready Eliminated by Use of Hengst System, 16, Sept.
Makeready Systems For Single and Multicolor Letterpress Printing, 21, Dec.
Modernization Brings New Life and New Customers to Printing Plant, 7, May.
News Inks, Mileage and "Color" Discussed, 20, Mar.
Offset Banished From Chicago Pressroom, R. J. McIndoe, 52, June.
Offset of First Impression Printing Discussed by Executive, 15, Sept.
Potato Graters Vital to Newspaper Color Printing, 9, Feb.
Power Demand Factor Automatically Limited, 25, June.
Pressman Must Learn Rubber Technique, 87, June.
Pressroom Suggestions, 142, Nov.
Printing Ink Research Bureau Coverage Scale, 51, Nov.
Printing Wood on Platen Presses, 10, Feb.
Prints Color on Newspaper Black Units, 10, Apr.
Problem of Poor Appearance of First Impression Newspaper Printing, 23, Aug.
Register on Flat-Bed Cylinders a Problem of Inertia and Momentum, 8, Sept.
Replies to "A.C. vs. D.C." Article, A. J. Cline, 10, May.
Riekert, Master Press Manipulator, 26, May.
Rollers From Synthetic Resins, 20, Jan.
Rubber Printing Plates and How To Manipulate Them, 7, Dec.
Shock-Proof Foundation for Sextuple Newspaper Printing Press, 62, June.
Small Offset Press, 8, May.
Stackers Aid in Handling Sheets, 7, Apr.
Static Electricity As It Affects Paper, 37, June.
Stroboscope and Its Usefulness, 70, June.
Supplement to A.C. vs. D.C. Drives for Newspaper Presses, H. F. Blankenbiller, 96, June.
Variation in Register at Variable Press Speeds, 74, June.
"Wet" Process Color Halftone Printing, 150, Nov.
When and Why, Offset, H. A. Porter, 9, Oct.
Pressman Must Learn Rubber Technique, W. J. Ruscoe, 87, June.
Printers, Generally, Shown Good Credit Risks, 21, June.
Printing Wood On Platen Presses, Robt. F. Salade, 10, Feb.
Prints Color on Newspaper Black Units, 10, Apr.
Problem of Poor Appearance of First Impression Newspaper Printing, 23, Aug.
Problem of Surplus Used Machinery, 40, Nov.
Production Chart Kept by Newspaper Composing Room Executive Shows Output in Graphic Manner, B. T. Juergens, 30, July.
Products Index for 1936, 91, Nov.
Proof Press Bed Galley Register Bar, 10, Jan.
Proofs, Wrinkle-Free, 144, Nov.
Pugh, M. D.: Pyrometers and Uses in Printing Industry, 12, May.

R

Register on Flat-Bed Cylinders a Problem of Inertia and Momentum, Sam'l Oppenheimer, 8, Sept.
Reiser, Adam Henry: Deep-Etch and "Indestructible" Press Plate, 11, Mar.
Small Offset Press, Is It Here to Stay or Is It Just Passing Fancy? 8, May.
Relief Stereo Plates from Matrices Made by Ernewein Process, 54, Nov.
Research Bureau Has Successful Meeting, 18, July.
Reverse Blue Print for Mortises, C. M. Bigsby, 98, June.
Riddell, Walter, Jr., Insertions in Shell Casts Easily Made. 22, Feb.
Riekert, Master Press Manipulator, 26, May.
Replies to "A.C. vs. D.C." Article, A. J. Cline, 10, May.
Rollers From Synthetic Resins, A. L. Freedlander, 20, Jan.
Roll-Up Process for Etching Halftones, 49, June.
Rosenbach, John W.: Electric Eye Regulates Stereotype Metal Temperature at Buffalo *News*, 18, Dec.
Rubber Printing Plates: Pressman Must Learn Rubber Technique, 87, June.
Rubber Printing Plates and How To Manipulate Them, Robt. F. Salade, 7, Dec.
Rule Dies—How To Make and Handle for Cutouts, Robt. F. Salade, 8, Mar.
Ruscoe, W. J.: Pressman Must Learn Rubber Technique, 87, June.

S

Salade, Robt. F.: Advantages of Plate Mounting System, 8, July.
Cylinder Press Slurs, 7, Jan.
Duotone Plates for Special Color Reproduction, 19, Apr.
Gravure with Paper Blends to Secure Effect, 58, June.
Printing Wood On Platen Presses, 10, Feb.
Rubber Printing Plates and How To Manipulate Them, 7, Dec.
Rule Dies—How To Make and Handle for Cutouts, 8, Mar.
"Wet" Process Color Halftone Printing, 150, Nov.
Sales of New Equipment Only Governed by Trade-In Plan, James E. Bennet, 28, June.
Sands for Graining Zinc Offset Plates Subject of Microscopic Study, 16, Aug.
Sense Must Be Used in Laying Out Plant for Efficient Operation, 66, June.
Service Given by A.N.P.A. Mechanical Department Pays Big Dividends, 66, June.
Shea, John J.: Offset of First Impression Printing Discussed by Executive, 15, Sept.
Shock-Proof Foundation for Newspaper Printing Press, C. M. Bigsby, 62, June.
Sinclair, Mac: Four-Color Plates, 7, Feb.
Technical Matters in Wide Variety Occupy Attention of A.N.P.A. Mechanical Conference, 10, July.
Small Offset Press, Adam Henry Reiser, 8, May.
Stacker Used to Dump Ink Barrels, Francis A. Westbrook, 32, June
Stackers Aid In Handling Sheets, 7, Apr.
Staff Writer: Control of Stock a Requirement for Efficient Plant Management, 10, Oct.
Display Linotypes Have New Features, 26, June.
Duffy Memorial, 30, June.
Equipment Association Will Carry on With Three Major Objectives, 7, July.
Financial Relief, Through New Plan Printer May Rehabilitate and Modernize, 7, Oct.
Fountain Cleaning Expedited by Means of Mechanical Drive, 140, Nov.
Going to Press on Time a Problem in Many Plants, 31, June.
Hard Metal Used to Cast Slugs on Intertypes, 34, June.
Lubrication of Printing Presses Accomplished Automatically, 13, Aug.
Potato Graters Vital to Newspaper Color Printing, 9, Feb.
Relief Stereo Plates from Matrices Made by Ernewein Process, 54, Nov.
Roll-Up Process for Etching Halftones, 49, June.
Tin—How Much Do You Lose in Dross?. 60, June.
Type Problems Answered in Comprehensive Book, 8, Apr.
Waste of Newsprint Greatly Reduced, 22, May.
Static Electricity As It Affects Paper, With Comments by Wm. C. Glass, 37, June.
Status of Newspaper Bleed Pages, 36, June.
Stereotyping: Book Printing From Stereo Plates, 145, Nov.
Double Pages with Single-Page Equipment, 17, Mar.
Electric Eye Regulates Stereotype Metal Temperature at Buffalo *News*, 18, Dec.
Hidden Flame, Some Technical Aspects with Respect to Stereo Metal Melting, 120, Nov.
Insertions in Shell Casts Easily Made, Walter Riddell, Jr., 22, Feb.
Manual, Joseph Goggin, 8, Aug.
Plane-O-Plate Uses High-Speed Cutter, 22, Oct.
Power Demand Factor Automatically Limited, 25, June.
Pyrometers and Uses in Printing Industry, 12, May.
Relief Stereo Plates from Matrices Made by Ernewein Process, 54, Nov.
Reverse Blue Print for Filling Mortises, 98, June.
Sense Must be Used in Laying Out Plant for Efficient Operation, 66, June.
Technical Note from Pony Pete, 27, Aug.
Stoffel, L. L.: Brushes, If Watched, Will Save Trouble, 93, June.
Stoker Used to Heat Stereo Pot, Jack Burke, 34, June.
Stout, Charles H.: Cost System in Composing Room is Powerful Fulcrum, 79, June.
Stroboscope and Its Usefulness, Milton E. Hanson, 70, June.
Suggestions for the Pressroom, 142, Nov.
Sullivan, Frank O.: Photo-Lith, Cleanliness of Supreme Importance Throughout Process, 77, June.

T

Technical Literature: 36, Jan.; 37, Feb.; 41, Mar.; 37, Apr.; 37, May; 37, July; 37, Aug.; 44, Sept.; 37, Oct.; 148, Nov., 34, Dec.
Technical Matters in Wide Variety Occupy Attention of A.N.P.A. Mechanical Conference, Mac Sinclair, 10, July.
Technical Note From Pony Pete, 27, Aug.
Texas-Oklahoma Mechanical Conference, 35, July.
Three Monographs on Color, 33, Sept.
Tillinghast, Harold M.: Color Printing In Daily Newspapers Must be Simple and Attractive, 45, Nov.
Tin—How Much Do You Lose in Dross? 60, June.
Titanium Pigments and Effects When Used in Printing Papers, Wm. R. Willets, 56, Nov.
Trimmer Applied to Ludlow for Cutting Waste From Slugs, J. M. Letham, 117, Nov.
Type Founding Under Rigid Control, H. I. Lewis, 9, Dec.
Type Problems, Staff Writer, 8, Apr.

V

Vandercook, R. O.: In Relation to Register at Varying Speeds, 26, Oct.
Variation in Register at Variable Press Speeds, 74, June.

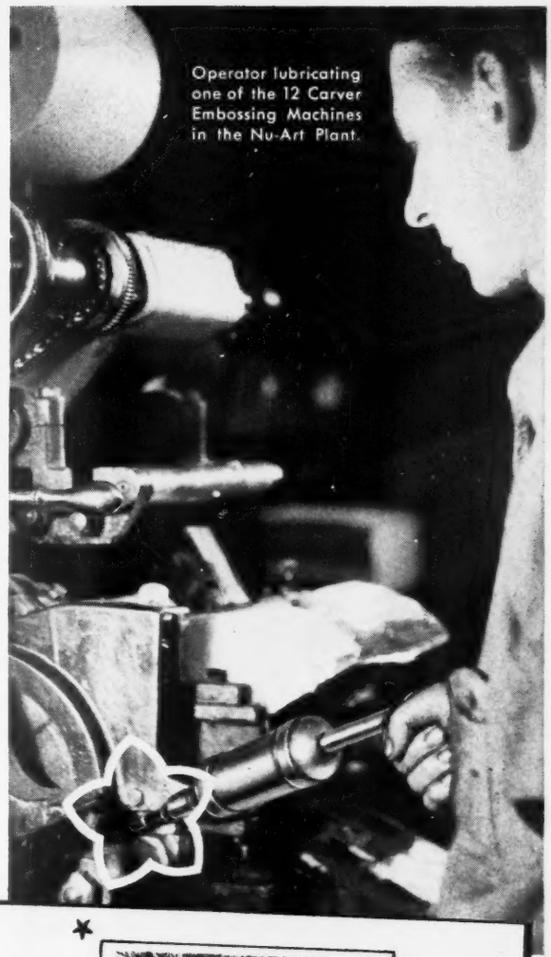
W

Waste In The Remelting Pot, 33, June.
Waste of Newsprint Greatly Reduced, 22, May.
Waste Products, Disposing of, 145, Nov.
Westbrook, Francis A.: Power Demand Factor Automatically Limited, 25, June.
Stackers Aid in Handling Sheets, 7, Apr.
Stacker Used to Dump Barrels, 32, June.
"Wet" Process Color Halftone Printing, Robt. F. Salade, 150, Nov.
When and Why, Offset? H. A. Porter, 9, Oct.
When to Discard Matrices, 33, Jan.
Whiteman, L. Jas., Left-Hand Perforating, 8, Jan.
Willets, Wm. R.: Titanium Pigments and Effects When Used in Printing Papers, 56, Nov.
Wirephoto Uses Electric Eye, A. P. Staff, 28, Mar.
Worn Matrix Teeth, 26, Feb.
Wrinkle-Free Proofs, 144, Nov.

"Weekly Alemiting Replaces Daily Oiling"

Says
G. C. Schabel
Plant Superintendent
NU-ART ENGRAVING CO.
Chicago, Ill.

"Prior to the application of the Alemite System and the use of Alemite Lubricant, our embossers required squirt-can lubrication daily. With the Alemite Barrel-to-Bearing System, weekly lubrication on all except the main bearings has proven adequate. The Alemite way saves us time, labor, and lubricant."



Operator lubricating one of the 12 Carver Embossing Machines in the Nu-Art Plant.

"Alemite Saves Us Time, Labor and Lubricant!"

The Nu-Art Engraving Company is one of the largest producers of Christmas greeting cards, having a capacity of 144,000 cards a day, for each of its 12 Carver Embossing Machines can turn out 12,000 cards in one working day. Before the installation of Alemite, these 12 machines had to be lubricated by the squirt-can method every day—and the main bearings required this out-of-date lubrication several times a day. Since the application of Alemite, lubrication once a week is adequate, and the main bearings now require lubrication only once a day.

If you are still using squirt-can lubrication, it will pay you to change over to the Alemite System. For Alemite puts an end to leaky oil holes and messy grease cups—and reduces contamination to a minimum. And Alemite insures positive lubrication of all your machinery. Saves labor, too, by reducing lubrication operations.

This simple, inexpensive lubrication system is easy to install. And you always know your machinery is thoroughly lubricated with the correct amount of lubricant.

We'll be glad to give you complete information.

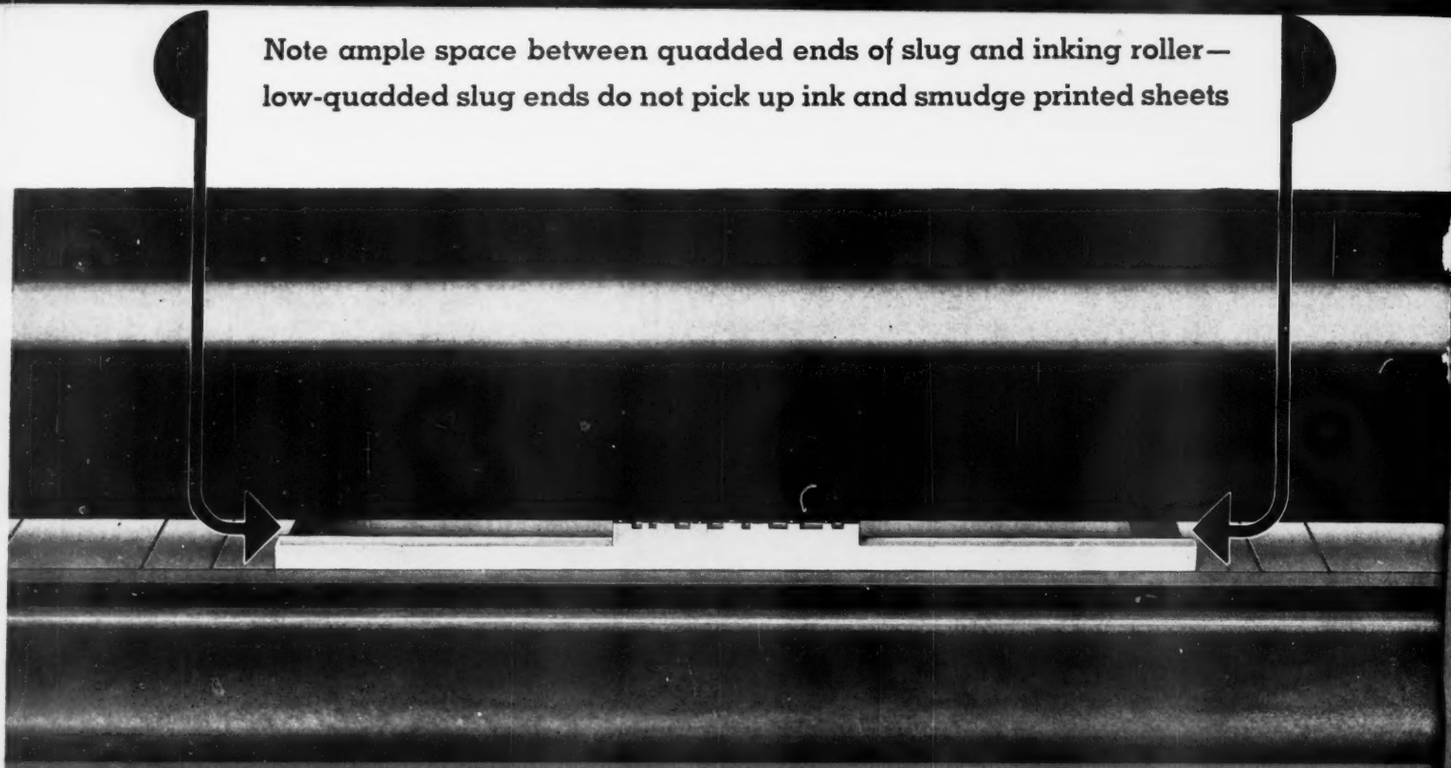
ALEMITE
A Div. of Stewart-Warner Corp'n.
1868 Diversey Pkwy., Chicago

PUT ME ON YOUR PRESSES... I'LL CUT MAINTENANCE COSTS FOR YOU!

A battery of Carver Steel Die Presses embossing Christmas Cards in the Nu-Art Engraving Company, Chicago.

ALEMITE
Wishes you a Very Merry Christmas and a Prosperous New Year

ALEMITE REG. U. S. PAT. OFF. *Controlled Lubrication*



Note ample space between quadded ends of slug and inking roller—low-quadded slug ends do not pick up ink and smudge printed sheets

Intertype **Low-Slug Quadding** Prevents Smudging

The ends of quadded lines in slug composition have always been a possible source of trouble on the press. Especially where a number of quadded lines occur together, the inking rollers are likely to touch the quadded slug ends, deposit ink upon them, and thus cause smudging of the printed sheet.

This problem is eliminated by Intertype Low-Slug Quadding. As shown in the above picture, low quadding provides a safe distance between the quadded slug ends and the inking roller. No ink is deposited upon the quadded parts of the slug, hence no smudging occurs.

To avoid such smudging heretofore, printers have adopted various expedients. Sometimes the quadded parts of slugs have been routed or sawed off or even cut off with a chisel. All such hand operations are eliminated by Low-Slug Quadding.

Other profitable new features now obtainable with the Intertype Autospacer include the mounting of cuts directly on Intertype slugs (no sawing, no base material) and automatic justified indentions at either end or at both ends of slug composition.

To printers and trade compositors who are about to invest in line composing machines: Investigate all the profit-earning features of Intertype Low-Slug Quadding. The nearest Intertype office will gladly give you sample slugs and complete information about this latest Intertype development.

• STEP AHEAD WITH INTERTYPE •

INTERTYPE CORPORATION • 360 FURMAN STREET • BROOKLYN, NEW YORK

SET IN CAIRO AND CAIRO BOLD